Area and Yield of Certain Crops

1891-92 to 1906-07

1905-06

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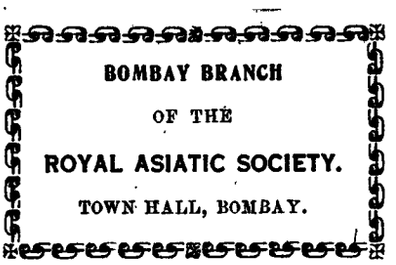

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AREA AND YIELD

OF

CERTAIN CROPS

FROM

1891-92 TO 1898-99

to

1891-92 to 1905-06 (~~except 1891-92 to 1899-1900~~)

+

1892-93 to 1906-07

1893-94 to 1907-08.

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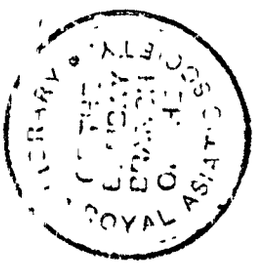

LIBRARY OF THE ROYAL ASIATIC SOCIETY

[Compiled in the Statistical Department of the Government of India, under the supervision of the Director-General of Statistics.]

00134319

CALCUTTA
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA
1899

BOMBAY BRANCH

OF THE

Royal Asiatic Society.

NOTE.

FOR several years past the Government of India have issued periodically during the season estimates of the yield of certain crops. These estimates, compiled from local statements, were for some years prepared in the office of the Department of Revenue and Agriculture. After the constitution of the Statistical Bureau their preparation was entrusted to the Director-General of Statistics.

It has been the practice to issue three estimates of each crop during the season, namely, a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the others. The final estimates have been used for the preparation of the condensed summaries contained in the present publication. These summaries present in a connected and convenient form a record of the conditions of the season as reported at the time from each province, and of the degree to which the crops were affected by the conditions.

Following the summaries is a set of tables in which are stated the area sown and the estimated yield of the crops. These tables are abstracts of the tables appended to the final estimates used for the compilation of the summaries. The figures, as is well known, are not complete. Those received from Madras, for instance, do not include the zamindári area, that is, the area of large proprietary estates, which constitutes a third of the Presidency. The figures received from the Native States also are generally very defective.

CALCUTTA,
October 16, 1899.

J. E. O'CONOR,
Director-General of Statistics.

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AREA AND YIELD

OF

CERTAIN CROPS

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

Summary of the conditions of the season and of their effect on the area and yield of crops from 1891-92 to 1898-99.

RICE.

1891-92

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. The yield was estimated at about five-eighths of an average crop. Deficient rain during the early part of the season also affected the autumn crop which yielded about three quarters of an average crop.

In Madras too the season was adverse, the rain failing over large areas, and the crop was estimated to be, on the whole, like that of Bengal, only about five-eighths of an average.

In Burma the condition of the crop was satisfactory, and the yield was estimated at about fifteen-sixteenths of a full average.

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation. The yield of autumn rice was stated to be a full average and that of the winter rice seven-eighths of an average crop.

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places, and the yield was but little more than in 1891-92.

In Burma conditions were good everywhere, and the yield was above the average.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter rice, and the yield was a full average. The yield of autumn rice was estimated at nearly three-fourths of an average crop.

In Madras the season was generally favourable for sowings, the area sown was larger than in the preceding year, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable, and a slightly larger area was sown than in the preceding year. The yield was estimated at from seven-eighths to more than a full average crop.

1894-95

Over the greater part of Bengal, and especially in the north, the late rains of October and November, being accompanied by no wind, were favourable to the crop of winter rice: in no district was the yield less than three-fourths of the full standard, and the yield of the province was put at one-sixteenth above the full standard: a better crop than had been known for some years. For the autumn rice the season was in the main favourable and the yield was stated to be nearly a full average.

In Madras the south-west monsoon was late in arrival and the rainfall was generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the produce, and in parts of the Carnatic and southern districts the crop withered. The yield was estimated at about eleven-sixteenths of an average crop.

In Burma the area finally reported was less than in the preceding year, the crop suffered somewhat from insufficient rain, and the yield was estimated at seven-eighths of the full standard.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November. The yield of the autumn rice was estimated at seven-eighths of an average crop, and that of the winter rice at thirteen-sixteenths of an average.

In Madras the crop generally was fair, though in Nellore, North Arcot, Madura, and Tinnevelly, in consequence of the failure of the early rains, the yield was estimated at

not more than nine-sixteenths of the average. The crop was also below the average in Godavari and Kistna owing to floods. On the whole the yield was estimated to be not quite three-fourths of the average.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was better than in the preceding year.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain which fell in February, but there was extensive failure of the crop, with famine, over large areas, especially in Bihar. The autumn rice was estimated at below five-eighths of an average crop, and the winter rice at less than half a full crop.

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts, and the yield for the province as a whole was estimated to reach two-thirds of the average.

In Burma, the season was favourable and the crop excellent. The yield was estimated at a full crop.

1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop. The yield of autumn rice was somewhat in excess of a full average, and of winter rice one-eighth above the average.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole fair enough, though qualified by the failure of the north-east monsoon, to produce a yield estimated at about two-thirds of a full crop.

In Burma the conditions of the season were uniformly favourable, the yield was a full average, and the surplus available for export was the largest on record.

1898-99

In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though damage was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop outside the submerged tracts and on high lands. The yield of the autumn rice was less than in the preceding year, but that of the winter rice was the largest since 1891.

In Madras the area sown exceeded the average and was slightly in excess of the extensive area planted in 1897. The rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic. The yield was estimated to be almost equal to the average on the whole.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season, and the yield was smaller than had been anticipated. It was estimated at seven-eighths of an average crop.

WHEAT.

1891-92

In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts, in February, injured the crop. The yield was estimated at three-fourths of an average.

In the North-Western Provinces and Oudh heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts. The yield was estimated at seven-tenths of a full average.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth. The crop was injured by early west winds in some parts of Bihar and north and east Bengal. The yield was not more than seven-sixteenths of an average.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely. The yield, which was very poor in the south and east and up to the average in the north, was on the whole four-fifths of the average.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnátak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture, and the yield was much below the average.

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects. The yield was one-eighth in excess of the average.

In the North-Western Provinces and Oudh the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and was favourable to germination. The winter rains benefited the crop, especially on unirrigated land, and the yield was estimated at about fifteen-sixteenths of an average crop.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop. The yield was about three-fourths of an average crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust, and the yield was much below the average.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind. Although the crop suffered in places from excessive moisture, hail, and rust, the yield was slightly in excess of the average.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March. The yield was estimated at eleven-sixteenths of an average.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands. Both area and yield were in excess of the average.

In the North-Western Provinces and Oudh the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust, and the yield was estimated at from two-fifths to three-fourths of the average.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season, and the yield was about three-fourths of an average.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93, and the yield was stated to be two-thirds of an average crop.

In Bombay the monsoon rainfall was excessive for kharif sowings and the area left unsown was utilised for wheat in the eastern Deccan. Sufficient late rain encouraged sowing in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings. Though the crop suffered from cloudy weather and rust in some places and from want of moisture in others, the yield was ten per cent in excess of the average.

In Berar the season varied considerably in different districts; in some the rainfall was excessive, retarding sowings, but the yield was on the whole 23 per cent above the average.

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent, being nearly as good as that of the preceding year.

In the North-Western Provinces and Oudh the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain, and the yield was much below the average.

In Bengal, although in consequence of the late arrival of the monsoon rain the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January, the yield was slightly better than in the preceding year.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, excessive moisture favoured the spread of fungoid diseases in many districts, and the yield scarcely reached half of a full crop.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable, and rust was common.

In the Nizam's Territory a larger area than in the preceding year was placed under wheat, but the yield was smaller, owing to heavy rain late in the season.

1895-96 In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain, and the yield was comparatively very small.

In the North-Western Provinces and Oudh the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area. On unirrigated land the crop was injured, but the yield in irrigated tracts was little, if at all, below the average.

In Bengal also the autumn rains ceased early and the winter rains failed. The area sown, though slightly in excess of that sown in the preceding year, was below the average, and the yield was much below it.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

In the Native States of Rajputana and Central India the area and yield were also greatly reduced.

In the Nizam's Territory the area was larger but the yield much smaller than the average.

1896-97 In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January, permitted of late sowing; and copious and well distributed rain in February, March, and April, which in an ordinary year would have been injurious, was beneficial to the crop. The yield was, however, below the average of recent years.

In the North-Western Provinces and Oudh the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February, strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good. The yield on the whole was little less than the average.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March. The area sown was smaller and the yield larger than in 1895-96.

In the Central Provinces the winter rains were favourable except in four or five districts. The area and the yield were about half the average.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted; and although irrigated areas in the Deccan did well, the yield over the whole presidency was less than half the average.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time, and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat. The yield was a little smaller than in the preceding year.

In the Nizam's Territory the season was almost equally unfavourable. The area sown was not much more than half the average, and the yield was only about one-fourth of the crop of 1895-96, which was somewhat below the average.

1897-98. In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second half of May damaged the grain on the threshing-floors. The area sown and the yield were about 10 per cent in excess of the average.

In the North-Western Provinces and Oudh the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February, and the yield was about 21 per cent above the average.

In Bengal the season was favourable; the autumn rain was copious and well distributed, and the crop germinated satisfactorily. The yield was 30 per cent above the average.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop. The area sown was largely below the average, but the yield was only 5 per cent below it.

In Bombay also the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places. The yield, however, approximated to the average.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, and though the unusually cold winter months and heavy dews benefited the crop, the yield was only two-thirds of the average.

In the Nizam's Territory the seasonal conditions were not so unfavourable as in the preceding year, and the yield was better, though still 40 per cent below the average.

1898-99.

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors. The yield was substantially smaller than in 1897, though in excess of the average.

In the North-Western Provinces and Oudh the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient, and the yield was much larger than the average.

In Bengal the season was uniformly favourable: the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit, and the yield was larger than the average.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts. The yield was relatively small.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly good. In Sind, the season was decidedly bad, and sowings were restricted owing to insufficient inundation and scanty rainfall. The yield, however, was not below the average.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small. The yield was about one-third of the average.

In the Nizam's Territory the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields. The yield was much below the average.

COTTON.

1891-92

In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July. Then rain was excessive, and as a consequence of these conditions injury was done to both the early sowings and the late crop. Damage was also done by locusts. The yield was stated to be three-fourths of an average crop.

In the North-Western Provinces and Oudh the weather conditions were the same as in the Panjab, with a worse result, for the yield was estimated at only a third of an average crop.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low land. The yield was half of a full crop.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnátak. In Sind the overflow of the Indus was also late and irregular. The total area was 8 per cent and the yield 31 per cent below the average.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it. The yield was about three-eighths of an average crop.

1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon was late but copious, floods injuring early sowings. The yield hardly amounted to seven-eighths of an average crop.

Similar conditions prevailed in the North-Western Provinces and Oudh.

In the Central Provinces excessive and injurious rain fell in September and October, and the yield was about three-fourths of an average crop.

In Gujarat the condition of the crop was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation. The yield on the whole was about three-fourths of the average.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop. The yield was nine-sixteenths of the average.

In the Madras Presidency the area and condition of the crop were normal in the Deccan districts, while in the southern districts the area was larger than usual; but serious injury resulted from the great deficiency in the rainfall of the north-east monsoon, and the yield was estimated at five-eighths of a full crop.

1893-94

In the Panjab the season was favourable, and though some damage was done by heavy floods in July, an average crop was obtained.

In the North-Western Provinces and Oudh continued heavy rain from July to October, and strong winds, retarded weeding operations and greatly damaged the crop. The yield varied from a half to three-fourths of an average.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain. The yield of the late and early crops was estimated respectively at about three-fourths and two-thirds of an average crop.

In the Bombay Presidency the area was much above the average, but rain in November damaged the crop, and the yield was estimated at 42 per cent below a full crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency and in Sind, but subsequently excessive rain reduced the yield below the average.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In the Madras Presidency the season was favourable, and the yield was estimated at about two-thirds of the average. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather, and the yield was below the average.

In the Nizam's Territory the area and yield were both much above the average.

1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious but on the whole very beneficial, and a fine yield was obtained.

In the North-Western Provinces, on the other hand, the area was slightly below the average; and the heavy rain and stormy winds of October and November reduced the anticipated yield to less than four-fifths of the average.

In Bengal owing to excessive rain the area of the early crop was below the average and the crop was damaged by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable, and the yield was estimated at seven-eighths of the average.

In the Central Provinces the sowings were slightly above, and in Berar slightly below, the average. The rains were heavy and damaged the standing crop, reducing the expected yield.

In Bombay the area sown, though greater than the average, was less than in the preceding year. The rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury, and reduced the expected yield.

In Madras there was a restriction in the area sown with the early and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains. The yield was finally estimated at nine-sixteenths of the average.

The yield in the Central India States was up to the average, but in the Nizam's Territory it was estimated at little more than half a crop.

1895-96

In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that, while on irrigated land the crop was good, it was poor on land dependent entirely on rain.

In the North-Western Provinces and Oudh the rains were generally favourable to the crop, the weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season proved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good and much better than it had been for years.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good, exceeding the average by 50 per cent.

In Berar also the scantier rainfall was beneficial to the crop; the area sown was smaller than the average, but the yield was larger.

In Bombay the absence of seasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton, and the yield of that crop was below the average. The area sown with the late crop was also below the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year, the yield varying, being over the average in places and below it in others. In Sind there was a deficiency of water but the yield was about the average.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

In Rajputana and Hyderabad the crop was very deficient.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which proved insufficient, and the crop was bad.

In the North-Western Provinces and Oudh there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop, especially on unirrigated lands, but the yield was better than the average.

In Bengal the season was unfavourable and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely. The yield was two-thirds of an average crop.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain. In the Nizam's Territory a restricted area was sown, and the crop was poor.

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the North-Western Provinces and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable, and the yield far better than that of 1896-97, though smaller than the average.

In the Central Provinces excessive and continuous rain in September and October injured the crop. The area was contracted, but an average yield was expected.

In Berar the season though a little late was on the whole favourable, and the yield was thirteen-sixteenths of an average crop.

In Bombay the yield of both early and late crops was materially smaller than the average. The area under late cotton, which comprises more than three-fourths of the whole area under that staple, was smaller than in 1896-97 when the land sown was sensibly below the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places, and the yield on the restricted area was six per cent less than the average.

In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient and an extended area was sown in the districts growing "northern" and "western" varieties, but the lateness of the monsoon contracted the area in places where Tinnevelly and Salem cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts, and the yield was estimated to be 20 per cent below the average.

In the Nizam's Territory the area sown was larger than the average, but owing to an unfavourable season, the yield was much below the average. In Central India the yield was estimated to be above the average.

1898-99

In the Panjab the rainfall at sowing time was scanty; in August it was irregular and deficient, but favourable showers in September did much to develope and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted. The yield was below the average.

In the North-Western Provinces and Oudh the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop, and the yield was above the average.

In Bengal the season was unfavourable owing to the uneven character of the monsoon, and the yield was estimated at 74 per cent of the average.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn, and the yield varied from 80 to 85 per cent of a normal crop.

In Berar the area sown was in excess of the average; dry weather in October and the failure of the late rains had a bad effect, and the favourable anticipations were lowered, but the yield was in excess of the average.

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was estimated to be 9 per cent above the average.

In Madras, owing partly to the unfavourable season in the Deccan districts, and partly to the low price of cotton, a reduced area was sown, and the yield was estimated to be 34 per cent less than the average.

In the Nizam's Territory the monsoon was late at the commencement of the season, and prospects were considerably improved by rain in August and September. The yield was estimated at 47 per cent below the average.

In Rajputana the season was on the whole unfavourable owing to insufficient rain, while in Central India the area and yield were reported to be considerably above the average.

OILSEEDS.

Linseed, rape, and mustard.

1891-92

In the Panjab the season was fairly good for oilseeds, and the area was the largest on record up to that year, but the yield disappointed expectation, being only thirteen-sixteenths of an average crop.

In the North-Western Provinces and Oudh the season was mild and favourable to linseed, and rapeseed was free from fungoid disease: both crops, however, suffered to some extent from the lateness of the winter rains.

In Bengal the dryness of the season affected the crops, and reduced the areas considerably in most districts.

In the Central Provinces and Berar the season was on the whole favourable. In the former linseed suffered from the failure of the winter rains; while in the latter rain at sowing time was favourable, but the late rains were scanty and the yield of linseed was estimated at about two-thirds of the average crop.

In Bombay though a large area was sown with linseed in the north Deccan, the crop was everywhere poor owing to deficient rain, and in the Karnátak it was a complete failure from drought. The rapeseed crop in Gujarat and Sind was also injured by the dryness of the season, and the yield was very deficient.

1892-93

In the Panjab, where the oilseeds mature late, the winter rains were followed by a large increase in the area sown, and the yield was estimated to be a sixteenth above the average.

In the North-Western Provinces and Oudh the area under rapeseed was 18 per cent smaller than the average. The expectations of a good crop were not realised owing to frost and wet weather in January and February, and the yield of both linseed and rapeseed was about 40 per cent short of the full standard.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop. The yield was, however, fully three quarters of an average crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was above the average.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. The area under linseed was below, but the yield better, than the average. The area under rapeseed in this province and in Sind was smaller than the average, but conditions were on the whole good or fair.

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop, the yield being about eleven-sixteenths of an average crop.

In Assam the area under mustard was above the average, the season was favourable, and the yield above the average.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair, and the area and yield largely exceeded the average.

In the North-Western Provinces and Oudh the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crops suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts. The yield was estimated at not quite three-fourths of the average.

In the Central Provinces in the earlier months the crop promised fairly well, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much larger than the average.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being much better than the average. In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust, and the yield was eleven-sixteenths of the average.

In the Nizam's Territory excessive rain caused a contraction in places of the area sown, while in others timely rainfall promoted sowings. The yield was 20 per cent above the average.

In Assam the season was favourable for the mustard crop, and sowings were slightly above the average, but the yield was below it.

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts. The condition of the crop varied from average to poor, and the yield did not reach the full standard.

In the North-Western Provinces and Oudh the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease. The area under linseed was 26 per cent larger than the average, but the yield 31 per cent below it. The area under rapeseed and the yield were smaller than the average.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January. The yield was estimated at three quarters of a full average crop.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined. The yield was only about a fourth of an average.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was much below the average.

In the Nizam's Territory the winter rains caused injury to the crop.

The area under mustard in Assam was small and the yield inferior, owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite as bad in the Panjab, Sind, the North-Western Provinces and Oudh, and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95 when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northern India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other hand, was more or less contracted everywhere except in the Nizam's Territory, and the contraction was very material in the Panjab, the North-Western Provinces and Oudh, Bombay, and Sind. The harvest, however, was good on the reduced area in the North-Western Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a crop which was much better than that of the previous year and was just over the average.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts, but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In Northern India the winter rains were timely and sufficient and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

The area sown with linseed was greatly contracted in the North-Western Provinces and Oudh, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at

sowing time. The yield was also much below the average, especially in the Central Provinces and Berar, while in Bombay the crop almost entirely failed. In Bengal and the North-western Provinces and Oudh the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the North-Western Provinces. The harvest was generally fair. The short rainfall in Assam was unfavourable for sowing mustard, and the yield was considerably below the average for want of rain during the period of growth.

1897-98 Conditions in the Panjab, the North-Western Provinces, and Bengal were favourable at sowing, and although the area sown was less than the average, except in the Panjab where the acreage under rapeseed was much greater, the yield was considerably more than the average.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapeseed crop, however, did better in Bombay and Sind. In Bombay the yield was 12 and in Sind 40 per cent above the average.

The mustard crop in Bengal and Assam was on a reduced scale in consequence of retarded sowings and deficient winter rains.

1898-99 In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage. The area sown was smaller than the average and the yield extremely low.

In the North-Western Provinces and Oudh excessive moisture at sowing time and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well. The yield of linseed was materially and of rapeseed a little in excess of the average.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop. The yield of linseed, rape, and mustard, was large.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was also very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts. The area sown was greatly below the average and the yield poor.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda) in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings. The area and yield, however, were low, the yield disproportionately so.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places, and the yield was very small.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains. The area was the lowest on record, and the yield was 60 per cent below the average.

In the Nizam's Territory the yield of linseed was larger than the average. Mustard and rapeseed did well, but these form a small crop.

Sesamum (*til or jinjili*).

1891-92 In the Panjab the season was decidedly unfavourable, the late arrival of the monsoon causing a reduction in the area sown. The crop was damaged by locusts, and the yield was very poor.

In the North-Western Provinces and Oudh the monsoon rain was quite abnormal, light in the beginning, but excessive at the latter end of the season. The area was reduced by one-third of the average, and the yield was estimated at half a full crop.

In the Central Provinces the season was unfavourable and sowings were greatly restricted. The crop was very poor.

In Bombay the rain at sowing time was favourable, but the growing crop suffered from drought as well as from excess of moisture in places. The yield was estimated to vary from a quarter to three quarters of an average crop. In Sind a low inundation and locusts affected both area and yield.

In Berar excessive rain and insects injured the crop, though its condition was favourable in some districts owing to sufficient and seasonable rain.

In Madras the area was reduced by the unfavourable character of the season, and the yield was estimated at three-eighths of an average crop.

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July stimulating sowing with the result that the area was 23 per cent above the average. The yield also was more than a full average.

In the North-Western Provinces and Oudh sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable to the crop. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop. Both area and yield were above the average.

In Bombay, there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was estimated to be greater than in the preceding year. In Sind the harvest was much below the average.

In Berar unfavourable rain and the rotation of crops caused a decrease in the area sown. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In the Madras Presidency, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop, and the yield was less than half the average.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the sown area; but the yield was below the average.

In the North-Western and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the North-Western than in the Central Provinces.

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was estimated at 24 per cent below the average.

In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

In Berar the early sowings were impeded by deficient, and the later sowings by excessive, rainfall; and excess of rain in September injured the prospects of the yield.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop a good one, the yield being only half of the average.

In the Nizam's Territory the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield to thirteen-sixteenths of the average.

In the North-Western and Central Provinces the season began well, but injury was afterwards done by excessive rains, especially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the North-Western Provinces the loss occasioned by the rains was considerable.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was about three-fifths below the standard taken for a full crop, owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower.

In Sind the area sown was above the average owing to favourable rain and extensive flood, and the yield was estimated at two-thirds of a full crop.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower, and the yield was generally poor.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The very early cessation of the north-east monsoon rainfall greatly restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was estimated at about half of the average.

1895-96

In the Panjab the rainfall was unfavourable and the area sown less than the average. The crop on the whole was poor and below the average.

In the North-Western Provinces and Oudh the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The area sown was below the average, and the crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, and the area sown was 34 per cent above the average. The season turned adversely later by reason of deficient rain and the abnormal heat which prevailed to the end of November. The yield was estimated at about 75 per cent of the full standard average.

In Bombay the area sown was above the average, rainfall having been seasonable, but the crops, both early and late, suffered from want of moisture, and the yield was below the average. In Sind scanty rain and a low inundation curtailed the area, the young crop suffered from want of moisture, and the yield was below the average.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was 38 per cent below the average.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average on account of the excessive sowing of the early crop. Rain was too heavy in some places while it was deficient in others, and the yield from both crops was estimated at half the average.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor, and though the area sown exceeded the average, the yield was 11 per cent below it.

In the North-Western Provinces and Oudh the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands. Although the area sown was comparatively large, the yield was below that of 1895.

In the Central Provinces the area sown was large, but the crop generally fared badly except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In the Bombay Presidency, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly, and the yield was estimated at 40 per cent less than the average.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended from timely rain. The former crop suffered severely from drought, and the result was a poor yield estimated at less than half a crop. The latter did not apparently suffer so much, but the yield was estimated at half the average.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food crops accounted for a contraction of the area sown with sesamum in most provinces. The yield varied greatly from about an average crop in Bombay, the North-Western Provinces, and the Panjab, to greatly below the average in Madras, Sind, and the Nizam's Territory. In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the North-Western Provinces and Oudh the area sown was 13 per cent smaller than the average. Excessive rain towards the latter part of the season deteriorated prospects, and the yield closely approximated to that of the preceding year.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time, and the yield was three-fourths of the average.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere, which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was materially larger than the average.

In Berar the sowings were made under favourable seasonal conditions and covered an area 48 per cent above the average, and though the crop was injured by the failure of the late rains, the yield was still largely in excess of the average.

In Madras the season was favourable for the late crop, and it grew in good conditions on an area much larger than the average. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded much less than the average.

In the Nizam's Territory the yield was much below the average.

JUTE.

1891 The rainfall when sowings were being made was excessive, and the area placed under the crop was smaller than in the preceding year. Germination and growth were also affected by excessive rainfall. Later, again, the want of rain was felt in several districts, and the yield was estimated at from eleven to twelve-sixteenths of an average crop.

1892 Excessive rainfall injured the plant in some districts, but on the whole the season was good, a larger area than in the preceding year was cultivated under the stimulus of high prices, and the yield was estimated to be a little above the average.

1893 The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season, and the yield was estimated to be about seven-eighths of the average.

1894 Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first half of August the fall was favourable in every district. The yield was estimated to be slightly above the average.

1895 The rainfall was in excess of the normal quantity in April and the first half of May, heavy in the second half of May in east Bengal, and less than the average in other parts. In the next two months it was deficient, and in the first half of August it continued deficient in central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger, being estimated at a sixteenth above the full average.

1896 Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts. The yield was estimated at seven-eighths of the average.

1897 On the whole the season was favourable, and there was enough water for steeping. The area was estimated to be a little smaller than in 1896, but the yield was said to be equal to those of 1894 and 1895, or a sixteenth above the average.

1898 The area sown was smaller than in 1897 owing partly to the unfavourable character of the season at sowing time, and partly to the low prices of jute in 1897 and to high prices of food-grains. The yield was estimated at seven-eighths of a normal crop.

INDIGO.

1891-92 In the Panjab the late arrival of the rains, and the ravages of locusts in some places, reduced the area to nearly half the average. The yield was generally below the average.

In the North-Western Provinces and Oudh the rains commenced very late and were heavy and continuous, causing a diminution in the area sown. The excessive drought in June and July seriously tried the crop, while the continued wet weather of August prevented the proper development of dye in the leaves. The yield was about half a full average.

In Bengal the season was altogether disastrous in consequence of an unusual deficiency of rainfall, and although the weather was more favourable at the manufacturing season, the yield hardly improved.

In Madras also the area was much below the average owing to the unfavourable character of the season, and the crop was estimated at only half the average.

1892-93

In the Panjab a protracted drought in the early summer retarded sowing, and the area sown was very much less than the average.

In the North-Western Provinces and Oudh the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In Bengal the season was unfavourable at sowing time owing to deficiency of rainfall in autumn and spring; conditions improved later by favourable rainfall, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused some injury.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December.

1893-94

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a yield which was equal to the full average in seed and to a sixteenth less than the full average in dye.

In the North-Western Provinces and Oudh a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

In Bengal the rainfall was favourable at sowing time, and a somewhat larger area than usual was placed under indigo, but heavy and incessant rain and floods caused great damage, and the yield was below the average.

In Madras larger sowings were made owing mainly to timely rains, and the crop yielded three-fourths of a full average.

1894-95

In the Panjab the area sown for dye largely increased, with a yield which was much above the average.

In the North-Western Provinces and Oudh, although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar, the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In the Panjab the crop was fair, the yield of dye being 8 per cent smaller than the full standard.

In the North-Western Provinces and Oudh the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most parts. The yield for the province was below the average.

In Madras the season was favourable in Kistna and North Arcot where a larger area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The standing crop was generally good, and the yield fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the North-Western Provinces and Oudh germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence and the yield was not very large.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield largely below the average.

1897-98

In Bengal the area was smaller than the average, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the North-Western Provinces and Oudh the season was not favourable; the growth of the plants was interfered with early in the season by excessive heat and insufficient rain, and the heavy rain of July and August flooded the low lands and greatly injured the indigo growing on them. The area sown, however, was much in excess of the average, and the yield was estimated at 13 per cent above the average.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good, the yield being above the average.

In Madras the area sown was smaller than the average, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food crops. The yield was estimated to be 25 per cent smaller than the average.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar where the yield was estimated to be equal to the average.

In the North-Western Provinces and Oudh the season was not favourable, and the area sown was much smaller than the average. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division. The yield was estimated to be 26 per cent below the average.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

ESTIMATED AREA AND YIELD OF THE RICE CROP

Province	Area in acres	Yield in cwts
Bengal		
1891-92	39,552,008	284,804,161
1892-93	(a)37,324,907	333,956,225
1893-94	37,886,500	374,227,800
1894-95	38,639,500	416,857,200
1895-96	37,447,600	317,514,600
1896-97	36,177,400	179,637,400
1897-98	39,549,500	398,142,000
1898-99	39,879,200	427,355,800
Madras		
1891-92	5,771,000	30,000,200
1892-93	6,408,200	35,980,400
1893-94	6,710,200	37,017,600
1894-95	6,569,400	35,662,600
1895-96	6,881,000	56,359,500
1896-97	6,620,000	43,359,700
1897-98	6,935,200	47,991,700
1898-99	6,952,700	55,203,600
Burma		
1891-92	4,215,023	(b)
1892-93	4,625,600	50,346,000
1893-94	4,928,600	47,874,000
1894-95	4,793,341	45,381,980
1895-96	5,068,147	41,481,000
1896-97	5,224,062	47,679,000
1897-98	5,720,766	52,217,000
1898-99	5,809,481	43,379,000
Total		
1891-92	49,539,031	314,804,161
1892-93	48,358,707	420,282,625
1893-94	49,525,300	459,119,400
1894-95	50,002,241	497,901,780
1895-96	49,396,747	415,355,100
1896-97	48,021,462	275,676,100
1897-98	52,205,466	498,350,700
1898-99	52,641,381	525,938,400

(a) Exclusive of Palámau.
(b) Not stated.

ESTIMATED AREA AND YIELD OF THE WHEAT CROP

Province	Area in acres	Yield in tons
Panjab		
1891-92	6,224,000	1,420,000
1892-93	7,020,000	2,213,000
1893-94	8,265,000	2,560,000
1894-95	8,051,800	2,395,353
1895-96	6,893,400	1,753,766
1896-97	6,584,300	1,872,066
1897-98	8,013,800	2,358,975
1898-99	7,729,200	1,977,777
North-Western Provinces and Oudh		
1891-92	4,692,000	1,579,000
1892-93	4,641,000	1,844,000
1893-94	4,827,000	1,473,000
1894-95	4,627,816	1,141,297
1895-96	3,896,406	1,236,486
1896-97	3,772,820	1,460,340
1897-98	4,537,351	1,773,488
1898-99	4,840,776	1,808,516
Central Provinces		
1891-92	3,904,000	760,000
1892-93	4,197,000	762,000
1893-94	3,936,000	575,000
1894-95	3,393,348	502,275
1895-96	2,714,454	368,038
1896-97	2,969,623	332,645
1897-98	2,171,714	543,095
1898-99	2,521,472	458,642

Province	Area in acres	Yield in tons
Bombay (including Native States)		
1891-92	2,176,000	426,000
1892-93	2,475,000	654,000
1893-94	2,525,000	762,000
1894-95	2,678,665	744,961
1895-96	2,288,838	454,865
1896-97	1,446,741	288,002
1897-98	2,004,832	627,914
1898-99	2,138,836	656,136
Berar		
1891-92	888,000	78,000
1892-93	985,000	76,000
1893-94	928,000	97,000
1894-95	889,326	81,882
1895-96	747,025	48,549
1896-97	381,425	11,841
1897-98	390,378	25,511
1898-99	436,362	21,892
Sind (including Native States)		
1891-92	483,000	117,000
1892-93	604,000	204,000
1893-94	531,000	161,000
1894-95	673,251	215,361
1895-96	315,559	71,683
1896-97	406,752	116,407
1897-98	591,621	177,160
1898-99	352,138	77,543

ESTIMATED AREA AND YIELD OF THE WHEAT CROP—*continued.*

Province	Area in acres	Yield in tons
Bengal		
1891-92	1,300,000	250,000
1892-93	1,559,000	466,000
1893-94	1,461,000	459,000
1894-95	1,413,000	686,300
1895-96	1,427,400	345,600
1896-97	1,341,700	386,600
1897-98	1,569,500	592,600
1898-99	1,594,600	666,800
Rajputana		
1891-92	1,471,000	362,000
1892-93	1,604,000	431,000
1893-94	1,646,000	389,000
1894-95	1,529,146	368,168
1895-96	1,306,868	315,573
1896-97	1,374,346	293,932
1897-98	1,302,233	307,062
1898-99	1,196,014	283,247
Central India		
1891-92	2,040,126	898,139
1892-93 (*a*)	1,639,485	278,340
1893-94 (*a*)	1,412,000	178,000
1894-95	2,543,104	826,945
1895-96	2,085,067	823,157
1896-97	1,396,229	337,389
1897-98	1,580,402	516,135
1898-99 (*a*)	1,277,630	241,672

Province	Area in acres	Yield in tons
Hyderabad		
1891-92	1,942,824	96,238
1892-93	1,260,272	97,062
1893-94	1,166,000	109,000
1894-95	1,527,445	74,034
1895-96	1,561,698	92,885
1896-97	852,643	23,010
1897-98	1,091,595	33,170
1898-99	1,196,520	37,225
Mysore		
1891-92	2,125	154
1892-93	2,640	189
1893-94	...	...
1894-95	4,534	304
1895-96	5,456	363
1896-97	3,871	413
1897-98	4,363	331
1898-99	4,029	492
Total		
1891-92	25,223,075	5,986,531
1892-93	25,987,397	7,025,591
1893-94	26,747,000	6,763,000
1894-95	27,331,435	6,836,880
1895-96	23,242,171	5,510,965
1896-97	19,530,450	5,122,945
1897-98	23,257,789	6,955,441
1898-99	23,287,577	6,229,942

(*a*) Incomplete.

ESTIMATED AREA AND YIELD OF THE COTTON CROP

Province	Area in acres	Yield in bales of 400 lbs each
Bombay (including Native States)		
1891-92	5,136,000	683,000
1892-93	5,286,400	946,400
1893-94	5,910,900	927,100
1894-95	5,292,717	782,497
1895-96	5,303,598	915,575
1896-97	5,033,549	723,587
1897-98	4,751,103	834,004
1898-99	4,814,213	1,056,481
Berar		
1891-92	2,244,000	302,000
1892-93	2,186,600	186,800
1893-94	2,184,800	162,500
1894-95	2,102,956	116,289
1895-96	2,071,856	235,268
1896-97	2,306,870	137,823
1897-98	2,150,329	185,965
1898-99	2,476,306	177,542
Madras		
1891-92	1,243,000	80,000
1892-93	1,826,200	103,600
1893-94	1,724,000	121,200
1894-95	1,521,500	106,980
1895-96	1,623,900	120,524
1896-97	1,395,400	104,655
1897-98	1,509,100	118,876
1898-99	1,295,000	124,735

Province	Area in acres	Yield in bales of 400 lbs each
Hyderabad		
1892-93	1,719,573	306,194
1893-94	1,593,113	321,591
1894-95	1,456,283	229,085
1895-96	1,607,792	326,879
1896-97	1,558,296	86,292
1897-98	1,653,669	97,586
1898-99	1,738,379	132,701
North-Western Provinces and Oudh		
1891-92	1,250,000	118,000
1892-93	1,045,100	118,000
1893-94	1,311,500	179,700
1894-95	1,492,084	141,506
1895-96	1,312,673	200,821
1896-97	1,423,924	182,127
1897-98	1,140,206	168,898
1898 99	1,130,322	189,668
Panjab		
1891-92	498,000	112,000
1892-93	549,900	118,200
1893-94	948,300	200,900
1894-95	1,124,500	231,997
1895-96	1,161,200	241,667
1896-97	1,176,700	204,806
1897-98	1,128,400	223,947
1898-99	788,600	166,707

ESTIMATED AREA AND YIELD OF THE COTTON CROP—*continued.*

Province	Area in acres	Yield in bales of 400 lbs each
Central Provinces		
1891-92	738,000	52,000
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	673,529	113,072
Rajputana		
1891-92	517,000	117,000
1892-93	500,400	133,300
1893-94 (*b*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	476,604	117,743
Central India		
1893-94 (*c*)	295,300	95,800
1894-95	512,936	114,060
1895-96	420,239	148,640
1896-97	522,683	137,840
1897-98	417,456	181,864
1898-99	455,344	236,840
Bengal		
1892-93	231,800	31,300
1893-94	216,000	30,400
1894-95	203,700	33,489
1895-96	197,900	28,009
1896-97	157,100	20,164
1897-98	174,000	29,890
1898-99	168,200	26,731
Sind (including Native States)		
1891-92	104,000	33,000
1892-93	69,800	32,400
1893-94	115,800	64,400
1894-95	113,589	47,264
1895-96	111,855	43,730
1896-97	123,706	48,595
1897-98	108,227	34,437
1898-99	100,020	(*d*)19,334
Total		
1891-92	11,730,000	1,497,000
1892-93	13,567,973	2,062,094
1893-94	15,608,013	2,354,891
1894-95	15,041,611	2,069,059
1895-96	14,866,954	2,517,915
1896-97	14,965,650	1,878,331
1897-98	14,243,772	2,132,070
1898-99	14,118,517	2,361,554

(*a*) Exclusive of the zamindári area in Raipur, Biláspur, and Sambalpur.
(*b*) Exclusive of Tonk.
(*c*) Exclusive of the main portion of the Bhopal Agency.
(*d*) Incomplete.

ESTIMATED AREA AND YIELD OF THE LINSEED CROP

Province		Area in acres	Yield in tons
North-Western Provinces and Oudh			
1891-92	Pure (*a*)	622,000	110,000
	Mixed (*a*)	4,044,000	97,000
1892-93	Pure	481,000	74,000
	Mixed	4,009,000	94,000
1893-94	Pure	742,000	101,000
	Mixed	4,008,000	65,000
1894-95	Pure	753,857	69,165
	Mixed	4,169,434	53,899
1895-96	Pure	403,565	55,796
	Mixed	3,927,944	82,462
1896-97	Pure	235,166	40,036
	Mixed	2,898,145	58,504
1897-98	Pure	519,461	110,619
	Mixed	3,434,500	90,976
1898-99	Pure	431,988	87,854
	Mixed	3,639,912	91,284
Central Provinces			
1891-92		1,388,000	112,000
1892-93		1,384,000	134,000
1893-94		1,788,000	132,000
1894-95		1,498,672	42,532
1895-96		730,750	45,253
1896-97		527,421	19,391
1897-98		683,728	69,783
1898-99		830,783	58,393
Bengal			
1892-93		805,700	121,900
1893-94		777,100	131,800
1894-95		732,900	120,900
1895-96		712,700	95,600
1896-97		587,800	84,900
1897-98		662,800	125,400
1898-99		684,300	143,000
Hyderabad			
1896-97		324,455	11,355
1897-98		438,030	15,141
1898-99		426,045	14,622
Berar			
1891-92		364,000	35,000
1892-93		354,000	21,000
1893-94		578,000	29,000
1894-95		385,563	13,893
1895-96		500,650	27,497
1896-97		188,142	4,576
1897-98		180,472	10,405
1898-99		171,085	7,683
Bombay (including Native States)			
1891-92		270,000	19,000
1892-93		233,000	25,000
1893-94		402,000	52,000
1894-95		410,692	25,308
1895-96		606,428	63,261
1896-97		157,763	2,221
1897-98		223,396	23,646
1898-99		213,994	18,047
Rest of India			
1891-92		567,000	114,000
1892-93		567,000	114,000
1893-94		567,000	114,000
Total			
1891-92		7,255,000	487,000
1892-93		7,833,700	583,900
1893-94		8,862,100	624,800
1894-95		7,951,118	325,697
1895-96		6,882,037	369,869
1896-97		4,918,892	220,983
1897-98		6,142,387	445,970
1898-99		6,398,107	420,883

(*a*) "Pure" means linseed sown by itself; "mixed" means linseed sown in the same fields with other crops.

ESTIMATED AREA AND YIELD OF THE RAPE AND MUSTARD CROP

Province		Area in acres	Yield in tons
North-Western Provinces and Oudh			
1891-92	Pure	132,000	32,000
	Mixed (a)	9,083,000	360,000
1892-93	Pure	126,000	27,000
	Mixed	8,588,000	367,000
1893-94	Pure	131,000	21,000
	Mixed	8,909,000	240,000
1894-95	Pure	109,347	16,497
	Mixed	9,109,152	216,050
1895-96	Pure	95,678	26,554
	Mixed	7,487,563	359,979
1896-97	Pure	83,372	18,524
	Mixed	7,084,519	340,602
1897-98	Pure	88,822	28,417
	Mixed	8,379,863	436,451
1898-99	Pure	84,152	22,884
	Mixed	8,548,444	410,983
Bengal			
1892-93		2,256,000	372,300
1893-94		2,209,100	334,200
1894-95		2,221,600	343,700
1895-96		2,148,400	332,400
1896-97		2,003,900	312,300
1897-98		2,239,700	438,600
1898-99		2,222,500	449,800
Hyderabad			
1896-97		1,994	73
1897-98		3,828	140
1898-99		8,796	340
Panjab			
1891-92		594,000	68,000
1892-93		850,000	135,000
1893-94		900,000	112,000
1894-95		802,600	97,224
1895-96		475,100	50,602
1896-97		515,300	52,756
1897-98		1,112,300	142,115
1898-99		582,600	56,041
Sind (including Native States)			
1891-92		169,000	22,000
1892-93		140,000	20,000
1893-94		111,000	17,000
1894-95		222,413	24,852
1895-96		53,664	8,503
1896-97		72,093	11,101
1897-98		154,248	27,277
1898-99		68,914	8,251
Assam			
1891-92		168,000	36,000
1892-93		170,000	45,000
1893-94		168,000	34,000
1894-95		134,399	20,249
1895-96		182,640	36,388
1896-97		178,408	38,853
1897-98		167,268	31,878
1898-99		134,856	21,891
Bombay (including Native States)			
1891-92		44,000	7,000
1892-93		65,000	13,000
1893-94		89,000	18,000
1894-95		91,822	18,509
1895-96		49,431	7,617
1896-97		55,615	8,207
1897-98		56,830	14,380
1898-99		52,679	9,718
Rest of India			
1891-92		68,000	10,000
1892-93		68,000	10,000
1893-94		68,000	10,000
Total			
1891-92		14,396,000	1,046,000
1892-93		12,263,000	989,300
1893-94		12,585,100	786,200
1894-95		12,691,333	737,081
1895-96		10,492,476	822,043
1896-97		19,895,201	782,416
1897-98		12,202,859	1,119,258
1898-99		11,702,741	979,908

(a) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops.

ESTIMATED AREA AND YIELD OF THE SESAMUM CROP

Province	Area in acres	Yield in tons
Madras		
1891-92	501,000	(a) 4,900
1892-93	318,600	(a) 5,522
1893-94	296,300	(a) 5,290
1894-95	613,600	16,739
1895-96	824,700	22,507
1896-97	562,800	14,830
1897-98	826,000	24,100
1898-99	754,000	28,300
Bombay (including Native States)		
1891-92	590,000	79,000
1892-93	703,500	105,500
1893-94	668,600	78,900
1894-95	754,072	100,438
1895-96	843,039	98,104
1896-97	770,553	65,600
1897-98	681,905	103,136
1898-99	709,120	107,410
Central Provinces		
1891-92	456,000	17,000
1892-93	503,000	33,000
1893-94	534,700	31,300
1894-95	520,099	27,714
1895-96	569,407	45,243
1896-97	627,948	43,953
1897-98	749,491	67,770
1898-99	637,928	47,330
Bengal		
1894-95	356,200	43,365
1895-96	368,900	35,930
1896-97	332,500	30,765
1897-98	367,500	49,800
1898-99	371,000	53,200
Panjab		
1891-92	122,000	15,000
1892-93	204,500	25,900
1893-94	234,800	25,900
1894-95	319,200	31,917
1895-96	189,400	18,772
1896-97	223,400	21,379
1897-98	195,400	22,984
1898-99	252,600	25,350
North-Western Provinces and Oudh		
1891-92	142,000	8,000
1892-93	152,600	14,700
1893-94	200,600	19,700
1894-95	177,043	15,513
1895-96	148,833	14,554
1896-97	177,785	12,222
1897-98	147,817	14,994
1898-99	150,783	15,159
Sind (including Native States)		
1891-92	103,000	(a) 7,800
1892-93	109,500	10,516
1893-94	177,740	12,309
1894-95	191,040	15,892
1895-96	151,038	12,052
1896-97	183,873	12,384
1897-98	154,812	8,260
1898-99	168,824	7,943
Berar		
1891-92	123,000	6,300
1892-93	115,100	4,000
1893-94	85,300	3,200
1894-95	69,715	2,359
1895-96	76,155	2,704
1896-97	103,298	3,515
1897-98	135,164	6,573
1898-99	135,483	5,620
Hyderabad		
1896-97	387,041	13,005
1897-98	404,020	13,200
1898-99	426,740	14,738
Total		
1891-92	2,037,000	138,000
1892-93	2,106,800	199,138
1893-94	2,198,040	176,599
1894-95	3,000,969	253,937
1895-96	3,171,472	249,866
1896-97	3,369,198	217,653
1897-98	3,662,109	310,317
1898-99	3,546,478	305,050

(a) Incomplete.

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ESTIMATED AREA AND YIELD OF THE JUTE AND INDIGO CROPS

Province	Area in acres	Yield in bales of 400 lbs		Area in acres	Yield in bales of 400 lbs
JUTE					
Bengal					
1891-92	1,403,445	(a)2,971,794	1895-96	2,242,700	6,425,900
1892-93	2,135,142	5,717,444	1896-97	2,196,600	5,032,000
1893-94	2,222,600	5,001,700	1897-98	2,151,600	6,189,200
1894-95	2,264,300	6,144,300	1898-99	1,624,400	4,153,800

Province	Area in acres	Yield in cwts	Province	Area in acres	Yield in cwts
INDIGO					
Madras			*Panjab*		
1891-92	166,130	18,540	1891-92	52,200	9,256
1892-93	301,000	50,420	1892-93	65,300	10,085
1893-94	442,400	58,100	1893-94	110,700	15,946
1894-95	514,500	67,480	1894-95	124,200	24,005
1895-96	414,900	63,680	1895-96	104,300	20,32
1896-97	454,700	50,740	1896-97	135,400	20,549
1897-98	323,900	61,460	1897-98	108,800	17,392
1898-99	187,000	30,940	1898-99	47,200	8,263
North-Western Provinces and Oudh			*Bengal*		
1891-92	201,269	20,533	1892-93	645,950	92,006
1892-93	206,516	26,545	1893-94	648,928	67,285
1893-94	349,980	38,106	1894-95	629,100	104,485
1894-95	420,242	41,524	1895-96	552,700	73,133
1895-96	342,102	33,786	1896-97	582,200	56,671
1896-97	436,601	40,713	1897-98	529,500	50,415
1897-98	376,899	37,545	1898-99	508,600	72,751
1898-99	235,519	26,416	*Total*		
			1891-92	419,599	148,329
			1892-93	1,218,766	179,056
			1893-94	1,552,008	179,437
			1894-95	1,688,042	237,494
			1895-96	1,414,002	190,924
			1896-97	1,608,901	168,673
			1897-98	1,339,099	166,812
			1898-99	978,319	138,370

(a) Approximate

G. I. C. P. O.—No. 728 F. & C. D.—25-10-99.—120.—B. N. D.

Third issue]

AREA AND YIELD :

OF

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

SUGARCANE

FOR VARIOUS PERIODS FROM

1891-92 TO 1900-01

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

IV

CALCUTTA
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1901

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OF THE

Royal Asiatic Society.

NOTE

THE Government of India issue periodically during the season estimates of the yield of certain crops. These estimates are compiled from local statements in the Statistical Department.

It has been the practice to issue, during the season, a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two. The summaries in the present publication are a condensation of the final estimates. They present in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables in which are stated the area sown and the estimated yield of the crops. These tables are abstracts of the tables appended to the final estimates. The figures, as is well known, are not complete. Those received from Madras, for instance, do not include the zamindári area, that is, the area of large proprietary estates, which constitutes a third of the Presidency. The figures received from the Native States also are generally very defective. It should be noted too that reports are received only from provinces in which the crop is extensively grown; for instance, estimates of the yield of rice are received only from Burma, Bengal, and Madras.

CALCUTTA,
June 14, 1901

J. E. O'CONOR
Director-General of Statistics

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AREA AND YIELD

OF

CERTAIN CROPS

Summary of the conditions of the season and of their effect on the crops, from 1891-92 to 1900-01

RICE

1891-92

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. Deficient rain during the early part of the season also affected the autumn crop.

In Madras too the season was adverse, the rain failing over large areas.

In Burma conditions were satisfactory.

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.

In Burma conditions were good everywhere.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.

In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable.

1894-95

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.

In Madras the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.

In Burma the crop suffered somewhat from insufficient rain.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.

In Madras the crop generally was fair, though in some places in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.

In Burma the season was favourable and the crop excellent.

RICE

1897-98 In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

1898-99 In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900 In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01 In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

WHEAT

1891-92 In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts in February, injured the crop.

In the North-Western Provinces and Oudh heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth, and the crop was injured by early west winds in some parts of Bihar and north and east Bengal.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnátak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture.

1892-93 In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the North-Western Provinces and Oudh the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and

was favourable to germination. The winter rains benefited the crop, especially on unirrigated land.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the North-Western Provinces and Oudh the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

In Bombay the monsoon rainfall was excessive for kharif sowings and the area left unsown was utilised for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the North-Western Provinces and Oudh the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable, and rust was common.

In the Nizam's Territory heavy rain late in the season reduced the yield.

1895-96

In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the North-Western Provinces and Oudh the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

WHEAT

1896-97

In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March, and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the North-Western Provinces and Oudh the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In the Nizam's Territory the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second half of May damaged the grain on the threshing-floors.

In the North-Western Provinces and Oudh the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

In Bengal the season was favourable; the autumn rain was copious andwell distributed, and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In the Nizam's Territory the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the North-Western Provinces and Oudh the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable; the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly

good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient inundation and scanty rainfall.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In the Nizam's Territory the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the third week of January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the North-Western Provinces and Oudh the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attemped on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was an almost absolute failure.

In the Nizam's Territory the conditions and results were similar to those in Berar.

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands, and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail, floods, excessive rain, and water-logging, as also, when the damage was caused on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the North-Western Provinces and Oudh the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield.

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarát rust, insects, and cloudy weather did harm. In the Deccan and Karnátak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

WHEAT

In the Nizàm's Territory sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.

In Rajputana and Central India both area and yield were much below the average.

COTTON

1891-92

In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July when rain was excessive. These conditions, and locusts, caused injury to both the early sowings and the late crop.

In the North-Western Provinces and Oudh the weather conditions were the same as in the Panjab, with a worse result.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low land.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnátak. In Sind the overflow of the Indus was also late and irregular.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it.

1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the North-Western Provinces and Oudh.

In the Central Provinces excessive and injurious rain fell in September and October.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

1893-94

In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the North-Western Provinces and Oudh continued heavy rain from July to October, and strong winds, retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious but on the whole very beneficial.

In the North-Western Provinces, on the other hand, the area was slightly below the average; and heavy rain and stormy winds in October and November reduced the yield.

In Bengal owing to excessive rain the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

In the Central Provinces and in Berar the rains were heavy and injured the standing crop.

In Bombay the rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with thearely and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains.

1895-96

In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that on irrigated land the crop was good, but poor on land dependent entirely on rain.

In the North-Western Provinces and Oudh the rains were generally favourable to the crop, weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season proved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of seasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton. The area sown with the late crop was also below the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year. In Sind there was a deficiency of water.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which was inadequate and the crop was bad.

In the North-Western Provinces and Oudh there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop, especially on unirrigated lands.

In Bengal the season was unfavourable, and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and al arge area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In the Nizam's Territory a restricted area was sown, and the crop was poor.

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the North-Western Provinces and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season though a little late was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing "northern" and "western" varieties, but the lateness of the monsoon contracted the area in places where Tinnevelly and Salem cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In the Nizam's Territory the area sown was large, but owing to an unfavourable season, the yield was bad.

COTTON

1898-99

In the Panjab the rainfall at sowing time was scanty, in August it was irregular and deficient, but favourable showers in September did much to develope and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted.

In the North-Western Provinces and Oudh the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop.

In Bengal the season was unfavourable owing to the uneven character of the monsoon.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn.

In Berar dry weather in October and the failure of the late rains had a bad effect, but the yield was good.

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In the Nizam's Territory the monsoon was late at the commencement of the season, and though prospects were improved by rain in August and September, the yield was bad.

In Rajputana the season was on the whole unfavourable owing to insufficient rain; in Central India the crop did well.

1899-1900

In the Panjab the prospects of the crop were generally hopeful in the beginning of the season, and sufficient rain at sowing time and a good supply of canal water induced cultivators to sow an extensive area, a large proportion being on land irrigated by canals and wells. But with the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the North-Western Provinces and Oudh excessive rain in June and July interfered with sowings and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was almost entirely lost.

In Bengal in the early part of the season the rainfall was irregularly distributed, and later it was on the whole inadequate, and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places and where it survived gave a very poor yield. In Sind the water supply was deficient and the yield poor.

In Madras the season was, on the whole, unfovourable and the yield very poor.

In the Nizam's Territory the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the North-Western Provinces and Oudh the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received throughout the provinces, and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

In Bengal the rain in July was, on the whole, well distributed and fairly continuous. In August it was irregularly distributed and more or less in defect everywhere. Much more copious and general rain fell in September, but in October it was deficient in most places. The season was, on the whole, unfavourable to early cotton, though fairly favourable to the late cotton except at sowing time.

In the Central Provinces, in consequence of the relative cheapness of cotton seed, favourable conditions at sowing time, and good prices, a very extensive area was sown. The distribution of the rainfall left something to be desired. In some parts the plants were swamped by the heavy and continuous rain of August and September, especially in the richer soils and in low-lying positions. Heavy rain in September also injured the flowers and the absence of rain in October affected the crop in poor soils and high-lying fields, and owing to insufficient moisture the bolls withered before maturity.

In Berar the area under cotton was the largest known. The monsoon rainfall was better than for many years past. The early rains were somewhat deferred and sowings were later than usual, but the fall in June and July was normal; August was very wet and in September also the fall was excessive; but the rains closed abruptly at the end of that month. The cotton crop on poor soils suffered from lack of moisture, but on all rich black soils and in low-lying lands there was a heavy crop.

In Bombay early cotton in the Deccan and late cotton elsewhere, mainly in Gujarat, covered a restricted area, early rains being deficient and not allowing full sowings. The devotion of part of the usual cotton area to food-grains consequent on last year's scarcity also accounts for some of the decrease. The crop promised well at first, but afterwards it suffered from the deficiency of the late rains.

In Madras the north-east monsoon failed in some places and the area sown was also restricted by the preference given to the cultivation of food-grains. The crop was generally fair except in the Deccan districts, where *Northerns* and *Westerns* were affected by disease and want of rain.

In the Nizam's Territory with good rain at the sowing season for early cotton a large area was brought under cultivation, but late cotton did not receive sufficient rain; and in the Aurangabad division, which has the largest cotton area in the territory, the sudden cessation of the winter rains kept the crop back.

In Central India both area and yield were much in excess of the average.

In Burma heavy rains greatly injured the crop.

OILSEEDS

Linseed, rape, and mustard

1891-92

In the Panjab the season was fairly good for oilseeds, and the area was the largest on record up to that year, but the yield disappointed expectation.

In the North-Western Provinces and Oudh the season was mild and favourable to linseed, and rapeseed was free from fungoid disease: both crops, however, suffered to some extent from the lateness of the winter rains.

In Bengal the dryness of the season affected the crops, and reduced the areas considerably in most districts.

In the Central Provinces and Berar the season was on the whole favourable. In the former linseed suffered from the failure of the winter rains; while in the latter rain at sowing time was favourable, but the late rains were scanty.

In Bombay though a large area was sown with linseed in the north Deccan, the crop was everywhere poor owing to deficient rain, and in the Karnátak it was a complete failure from drought. The rapeseed crop in Gujarat and Sind was also injured by the dryness of the season, and the yield was very deficient.

1892-93

In the Panjab, where the oilseeds mature late, the winter rains were followed by a large increase in the area sown.

In the North-Western Provinces and Oudh the expectations of a good crop were not realised owing to frost and wet weather in January and February.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was good.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. But on the whole both linseed and rapeseed did well.

OILSEEDS

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop.

In Assam the season was favourable.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair.

In the North-Western Provinces and Oudh the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crops suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts.

In the Central Provinces the crop promised well in the earlier months, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much good.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being good. In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust.

In the Nizam's Territory excessive rain caused a contraction in places of the area sown, while in others timely rainfall promoted sowings.

In Assam the season was favourable for mustard.

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts.

In the North-Western Provinces and Oudh the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was poor.

In the Nizam's Territory the winter rains injured the crop.

The area under mustard in Assam was small and the yield inferior, owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite as bad in the Panjab, Sind, the North-Western Provinces and Oudh, and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95 when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northern India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other hand, was more or less contracted everywhere except in the Nizam's Territory, and the contraction was very material in the Panjab, the North-Western Provinces and Oudh, Bombay, and Sind. The harvest, however, was good on the reduced area in the North-Western Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a good crop.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts, but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In Northern India the winter rains were timely and sufficient and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

The area sown with linseed was greatly contracted in the North-Western Provinces and Oudh, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at sowing time. The yield was also bad especially in the Central Provinces and Berar, while in

Bombay the crop almost entirely failed. In Bengal and the North-Western Provinces and Oudh the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the North-Western Provinces. The harvest was generally fair. The short rainfall in Assam was unfavourable for sowing mustard, and the yield was affected by the absence of rain during the period of growth.

1897-98

Conditions in the Panjab, the North-Western Provinces, and Bengal were favourable at sowing, and although the area sown was restricted, except in the Panjab where the acreage under rapeseed was increased, the yield was good.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapeseed crop, how ever, did better in Bombay and Sind.

The mustard crop in Bengal and Assam was reduced in consequence of retarded sowings and deficient winter rains.

1898-99

In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage.

In the North-Western Provinces and Oudh excessive moisture at sowing time and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; and injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda) in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains.

1899-1900

In the Panjab the early cessation of the monsoon, the dry autumn months, and the lateness and deficiency of the winter rains, had the natural result of diminished sowings and restricted yield of rapeseed. In some places no yield at all was obtained, the crop having been cut when green and eaten as a vegetable by the people or given as fodder to the cattle.

In the North-Western Provinces and Oudh excessive rain in June and July was followed by a material deficiency in August and September, and the three following months were exceptionally dry; fortunately rain fell about the middle of January and did much good to both linseed and rapeseed

In Bengal the season was not favourable to the cultivation of oilseeds. The rainfall in the autumn months was in defect, and the want of rain was felt in many districts at the time of sowing, while an excess in others interfered with the proper germination of the seeds. The usefulness of the rain which fell in January was qualified by the injury done in some places by hail.

In Assam the late subsidence of the floods, combined with the late cessation of the rains, interfered with timely sowings, but the yield was good owing to favourable weather after the crop was sown.

In the Central Provinces, the want of moisture in the soil at sowing time, and the absence of the winter rains, told upon linseed seriously. Germination was exceedingly defective, and the plants which came up yielded but little seed.

In Bombay linseed was a complete failure in Gujarat, no sowings being possible in consequence of the failure of the rains. In the Deccan and other parts of the Presidency, the conditions were hardly better. The rapeseed crop was also practically a complete failure, some return having been obtained only in Cutch.

In Berar also linseed was a disastrous failure. Even the best black soil failed to retain enough moisture to nourish the crop, and the plants withered before reaching maturity.

In the Nizam's Territory, which is subject to climatic conditions resembling those of Berar and Bombay, linseed, rapeseed, and mustard all did very badly.

OILSEEDS

1900-01

In the Panjab the season was most favourable for rapeseed. The monsoon rains were abundant and the winter rains fell at opportune intervals, both for sowing and maturing. The area under the seed was more than double the average, and the yield very large.

In the North-Western Provinces and Oudh the rainfall of the monsoon was abnormally heavy towards the end of the season, and the winter rains were also excessive and prolonged. The moisture in the soil was ample at the sowing season, and consequently the area sown was extended. But though the moisture permitted of the sowing of seed in a fairly large way, the excessive and prolonged continuance of the rain and cloudy weather generated fungoid diseases, and the crop was seriously affected by them in many districts, the yield in the localities affected being hardly more than half the normal crop.

In Bengal the monsoon rains were fitful and irregular, falling in abnormal quantity towards the end of the season, while the winter rain in January and February was also much in excess of the normal. On the whole the season was unfavourable to the oilseed crops, which suffered from an excess of rain in many districts and from comparative drought in others.

In Assam the mustard crop suffered in most districts from the absence of rain during the period of growth.

In the Central Provinces the continuous rain during August and September interfered with the preparation of land, whilst the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and except in Nagpur, prospects were favourable until the continued cloud and rain in January and February induced rust which caused great injury. The unfavourable conditions after January told seriously upon linseed.

In Bombay linseed is mostly grown in the Deccan and Karnátak, and in both tracts the crop suffered so greatly from the absence of moisture owing to scanty rain as to be an almost complete failure. Rapeseed did better in Gujarat, but this crop is of much more importance in Sind, where the area sown was in excess of the average and a fair yield is expected.

In Berar the area sown with linseed was far below the average. After the year of famine during which both food-stocks and credit were exhausted, the general inclination of the cultivators was to obtain as early a crop as possible, and larger areas were devoted to the autumn crops, notably jawar and cotton. The monsoon rainfall was in excess of the average, but the ground had been so thoroughly parched by the failure of the rains of 1899 that the moisture was rapidly absorbed and was inadequate for the successful growth of linseed. No rain fell after sowings had been completed, the rain of January came too late to be of any material benefit, and the yield was poor.

In the Nizam's Territory an extensive area, not materially smaller than the average, was placed under linseed, but the conditions of the season were unfavourable, as in Berar.

Sesamum (til or jinjili)

1891-92

In the Panjab the season was decidedly unfavourable, the late arrival of the monsoon causing a reduction in the area sown. The crop was damaged by locusts, and the yield was very poor.

In the North-Western Provinces and Oudh the monsoon rain was quite abnormal, light in the beginning, but excessive at the latter end of the season. The area and yield were both small.

In the Central Provinces the season was unfavourable and sowings were greatly restricted. The crop was very poor.

In Bombay the rain at sowing time was favourable, but the growing crop suffered from drought as well as from excess of moisture in places. In Sind a low inundation and locusts affected both area and yield.

In Berar excessive rain and insects injured the crop, though its condition was favourable in some districts owing to sufficient and seasonable rain.

In Madras the area and yield were reduced by the unfavourable character of the season.

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July stimulating sowing. The yield was very good.

In the North-Western Provinces and Oudh sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop.

In Bombay there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was better than in the preceding year. In Sind the harvest was bad.

In Berar unfavourable rain and the rotation of crops caused a decrease in the area sown. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In Madras, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the sown area; but the yield was small.

In the North-Western and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the North-Western than in the Central Provinces.

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was not good. In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

In Berar the early sowings were impeded by deficient, and the later sowings by excessive, rainfall; and excess of rain in September injured prospects.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop good.

In the Nizam's Territory the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield.

In the North-Western and Central Provinces the season began well, but injury was afterwards done by excessive rains, especially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the North-Western Provinces the loss occasioned by the rains was considerable.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was deficient owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower. In Sind with favourable rain and an extensive inundation the yield was fairly good.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower, and the yield was generally poor.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The early cessation of the north-east monsoon rainfall restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was very poor.

1895-96

In the Panjab the rainfall was unfavourable, and the crop on the whole was poor.

In the North-Western Provinces and Oudh the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, but the season became adverse later by reason of deficient rain and the abnormal heat which prevailed to the end of November.

In Bombay a large area was sown, the rainfall being seasonable, but the crops, both early and late, suffered from want of moisture. In Sind scanty rain and a low inundation curtailed the area, and the young crop suffered from want of moisture.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was bad.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average on account of the excessive sowing of the early crop. Rain was too heavy in some places while it was deficient in others, and the yield from both crops was bad.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor.

In the North-Western Provinces and Oudh the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands.

OILSEEDS

In the Central Provinces the area sown was large, but the crop generally fared bad except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In Bombay, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended from timely rain. The former crop suffered severely from drought, and the result was a poor yield. The latter did not suffer so much.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food crops accounted for a contraction of the area sown in most provinces.

The yield varied greatly from about an average crop in Bombay, the North-Western Provinces, and the Panjab, to greatly below the average in Madras, Sind, and the Nizam's Territory.

In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the North-Western Provinces and Oudh the area sown was restricted, and excessive rain towards the latter part of the season deteriorated prospects.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere, which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was large.

In Berar sowings were made under favourable seasonal conditions, and, though the crop was injured by the failure of the late rains, the yield was large.

In Madras the season was favourable for the late crop, and it grew in good conditions on an extended area. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded a poor crop.

1899-1900

In the Panjab the season opened very well, but became more unfavourable as the months passed, and the yield was small.

In the North-Western Provinces and Oudh the excessive rainfall in the beginning of the season gave rise to apprehensions regarding the prospects of the crop, and later the crop was damaged by continued drought in the Meerut, Agra, and Rohilkhand divisions, where, however, til is not extensively sown. In the tracts in which the cultivation of til is important, the moderate rainfall of August and September proved very beneficial and the yield there was good.

In Bengal on the whole the season was good enough, though the rains were irregular, excessive in some places and insufficient in others; and the yield was larger than the average.

In the Central Provinces the season favoured sowing operations, but it did not continue favourable, and the abnormal heat of November did much injury. The early crop was fairly successful, but the cold weather til in many places began to wither when on the point of maturity.

In Bombay the early rains were scanty and the later rains failed entirely. Owing to the extremely unfavourable nature of the season the crop withered away in many places and where it survived gave the poorest yield.

In Berar the crops withered under the drought and the excessive heat which followed.

In Madras the area sown was restricted, the south-west monsoon being unfavourable in most places, and the yield was not good.

In the Nizam's Territory the rains failed, and the crop withered under the drought which followed some good rain in September.

In the Panjab the area sown was much below the average, heavy floods in some districts restricting sowings.

In the North-Western Provinces and Oudh the monsoon began late and was generally scanty and unevenly distributed until the third week of August. Then and in September, excellent rain fell, and its distribution was all that could be desired, especially in Bundelkhand, where ordinarily four-fifths of the area under sesamum is grown. Except for heavy falls in Benares and Gorakhpur in the second week of October, the weather during that month and November was clear and seasonable.

In Bengal the monsoon rainfall was capricious and irregular, and, on the whole, the season was not favourable for oilseeds, which suffered from an excess of rain in many tracts, while in others they suffered from drought.

In the Central Provinces the conditions at the time of sowing, both of the early and late varieties, were generally favourable and a large area was sown. Sesamum is a cheap crop to sow, and it resists drought better than most crops. The difficulty of obtaining the relatively expensive seed of wheat and other spring crops stimulated its cultivation. The early crop suffered somewhat from the heavy rain at the close of August and during September. The germination of the late sown crop, which is more extensively grown in the south of the provinces, also was irregular, heavy rain just after sowing having washed away part of the seed. Drought during October and November, abnormal heat, and insects, following on cloudy weather, also injured the crop. In consequence the yield was smaller than the normal.

In Bombay the conditions were good in Káthiáwár at the time of sowing, and double the average area was sown, the increase there and in Gujarat more than making up for the contraction in other part of the Presidency caused by the preference of cultivators for the cultivation of food-grains.

In Berar the rains at sowing time and the monsoon rains were favourable; there were no prolonged break, and the crop developed well under congenial climatic conditions.

In Madras the conditions were not good, and though a large area was sown the crop was deficient.

In the Nizam's Territory a few seasonable showers in January, which were badly needed, improved prospects.

JUTE

1891

The rainfall when sowings were being made was excessive, and the area placed under the crop was smaller than in the preceding year. Germination and growth were also affected by excessive rainfall. Later, again, the want of rain was felt in several districts.

1892

Excessive rainfall injured the plant in some districts, but on the whole the season was good, and a larger area was sown under the stimulus of high prices.

1893

The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season.

1894

Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first half of August the fall was favourable in every district.

1895

The rainfall was in excess of the normal quantity in April and the first half of May, heavy in the second half of May in east Bengal, and less than the average in other parts. In the next two months it was deficient, and in the first half of August it continued deficient in central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger.

1896

Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts.

1897.

On the whole the season was favourable, and there was enough water for steeping.

JUTE

1898 The area sown was smaller than in 1897, owing partly to the unfavourable character of the season at sowing time and partly to the low prices of jute in 1897 and to high prices of food-grains.

1899 The weather, though seasonable in the beginning, became extremely unfavourable towards the end of the season.

1900 There was some deficiency of rain in March and April, which prejudicially affected sowings in a few places. In May and the first fortnight of June, the rainfall was also light, but good rain later greatly improved the prospects of the crop. In July there was heavy rain in most districts, but a partial drought followed in August which, combined with a want of flood-water from the rivers, hampered steeping operations in north and east Bengal, and in a few cases diminished the yield. Fair rains fell in the first half of September, but almost too late to have much effect on the yield.

INDIGO

1891-92 In Bengal the season was altogether disastrous in consequence of an unusual deficiency of rain, and although the weather was more favourable at the manufacturing season, the yield was hardly increased.

In the North-Western Provinces and Oudh the rains commenced very late and were heavy and continuous, causing a reduction in the area sown. The excessive drought in June and July seriously tried the crop, while the continued wet weather of August prevented the proper development of dye in the leaves.

In the Panjab the late arrival of the rains, and the ravages of locusts in some places, reduced the area and the yield.

In Madras the area and yield were seriously affected by an unfavourable season.

1892-93 In Bengal the season was unfavourable at sowing time owing to deficient rain in autumn and spring; conditions improved later with favourable rain, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused injury.

In the North-Western Provinces and Oudh the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In the Panjab a protracted drought in the early summer retarded sowings, and the area sown was very much reduced.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December.

1893-94 In Bengal the rainfall was favourable at sowing time, and a large area was sown, but heavy and incessant rain and floods caused great injury.

In the North-Western Provinces and Oudh a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a good yield.

In Madras larger sowings were made owing mainly to timely rains.

1894-95 In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In the North-Western Provinces and Oudh, although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In the Panjab the area sown was increased, and the crop was good.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most places.

In the North-Western Provinces and Oudh the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In the Panjab the crop was fair.

In Madras the season was favourable in Kistna and North Arcot where a large area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The yield generally was fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the North-Western Provinces and Oudh germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair. Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield small.

1897-98

In Bengal the area sown was small, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the North-Western Provinces and Oudh the season was not favourable; the growth of the plants was interfered with early in the season by excessive heat and insufficient rain, and the heavy rain of July and August flooded the low lands and greatly injured the indigo growing on them.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good.

In Madras the area sown was small, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food crops.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar.

In the North-Western Provinces and Oudh the season was not favourable. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

1899-1900

In Bengal the season in the beginning was not unfavourable, but the excessive rain which fell in June, July, and August was most injurious, and the crop was also injured in many districts by the floods which followed the excessive rain.

In the North-Western Provinces and Oudh the crop continued in good condition until the end of June, but excessive rain fell in July and seriously injured the plant everywhere, especially in the eastern districts. The rains then fell away and drought, particularly in Agra and Meerut, added to the injury done by heavy rain.

In the Panjab the crop suffered from the absence of rain and the stoppage of canal irrigation in Multan and Dera Ghazi Khan. In some unirrigated tracts it failed entirely.

In Madras also the season was generally unfavourable and the yield deficient.

1900-01

In Bengal sowings and the early growth of the crop were retarded by the scanty rain of April and May. Fairly good rain in June and July was followed by an interruption in August, but prospects were improved in Bihar by abundant rain in September, which, however, was accompanied by floods and consequent injury to the crop in Lower Bengal. In October sufficient rain fell, and the season generally was much better than that of 1899. The area, however, was restricted, owing to the substitution of other crops for indigo in north

INDIGO

SUGAR

Bihar under the discouragement of the comparatively low level of prices during the preceding three seasons. The yield on the whole was good in the districts of north Bihar, but very poor in Lower Bengal where, however, the cultivation of indigo is now greatly restricted.

In the North-Western Provinces and Oudh, unlike Bengal, the area sown increased, the increase being ascribed to the temporarily improved prices in the previous season. It may be that that improvement was an inducement to native growers of indigo, while it did not remove the discouragement to European planters. In the early months of the season prospects were good, but heavy rain in the Doab towards the end of the season reduced the yield.

In the Panjab the rains were late at sowing time, but the crop did well later when the rain came down abundantly.

In Madras the high prices of food-grains induced cultivators to restrict their sowings of indigo. The crop sown was very fair on the whole.

SUGARCANE

1899-1900

In Bengal the season was generally favourable to the crop at the beginning, but excessive rain in some parts, in August, September, and October, adversely affected prospects, while, in a few places, the crop was injured by the absence of seasonable rainfall and by insects.

In the North-Western Provinces and Oudh the season was favourable until the autumn rains set in; but the excessive rainfall of June and July seriously injured it, and further injury was caused by the scanty rainfall of the succeeding months. Slight injury from insects was also reported from several districts.

In the Panjab the unfavourable weather conditions affected even the crop grown on irrigated lands, and cane grown on unirrigated land was practically a failure. The crop was stunted in growth and deficient in juice, while, owing to the great scarcity of fodder, the cane was used entirely or very largely in many districts as cattle-food.

In Madras the weather in many places was unfavourable, and some of the crop suffered from want of water, especially in the Circars.

1900-01

In Bengal the rainfall to the end of July was generally in defect; in August it was badly distributed and more or less deficient; in September it was copious and general; there was very little in October, and in November and December practically none. On the whole, the monsoon conditions were not very favourable to the crop, which also, in a few districts, suffered to some extent from insect pests.

In the North-Western Provinces and Oudh the rains of February and March favoured sowings, and the crop germinated freely. Hot winds and afterwards insufficient rain in June and July retarded growth; but the crop was generally very healthy and promising. The rainfall was moderate in August but unusually heavy in September, and accompanied by high east winds. Floods also caused some local injury on low lands. On the whole the autumn rains greatly benefited the crop. November was rainless, but December and January were exceptionally wet; and cane-pressing was delayed in places by excessive rain.

In the Panjab the area under cane was slightly reduced, owing to dry weather at sowing time in April and May and to the fact that prices of food-grains were so high that it was more profitable to grow them than sugar on some lands. In Hoshiarpur, one of the chief cane-producing districts in the province, another reason assigned for the decline was the supersession of indigenous by imported sugar. In Sialkot it was said that a great number of cultivators emigrated with their cattle to other places owing to the dearness of food and scarcity of fodder in the previous year, and as most of the cane crop was used as fodder in the preceding year, the supply of seed was small and the price high. Although there was, on the whole, a decline in the area under cultivation, both irrigated and unirrigated, the season was far more favourable than the previous year.

In Madras early rains and an adequate supply in tanks led to increased sowings. The condition and yield of the crop were generally fair.

Tables of Area and Yield

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ESTIMATED AREA and YIELD of certain CROPS

RICE

Province	Area in acres	Yield in cwt	Province	Area in acres	Yield in cwt
Bengal			*Burma*		
1891-92	39,552,008	284,804,161	1891-92	4,215,023	(a)
1892-93	37,324,907	333,956,225	1892-93	4,625,600	50,346,000
1893-94	37,886,500	374,227,800	1893-94	4,928,600	47,874,000
1894-95	38,639,500	416,857,200	1894-95	4,793,341	45,381 980
1895-96	37,447,600	317,514,600	1895-96	5,068,147	41,481,000
1896-97	36,177,400	179,637,400	1896-97	5,224,062	47,679,000
1897-98	39,549,500	398,142,000	1897-98	5,720,766	52,217,000
1898-99	39,605,400	405,842,900	1898-99	5,910,650	44,851,000
1899-1900	39,490,500	357,956,360	1899-1900	6,050,135	54,160,000
1900-01	37,114,600	332,926,700	1900-01	6,298,313	54,442,100
Madras			*Total*		
1891-92	5,771,000	30,000,200	1891-92	49,539,031	314,804,161
1892-93	6,408,200	35,980,400	1892-93	48,358,707	420,282,625
1893-94	6,710,200	37,017,600	1893-94	49,525,300	459,119,400
1894-95	6,569,400	35,662,600	1894-95	50,002,241	497,901,780
1895-96	6,881,000	56,359,500	1895-96	49,396,747	415,355,100
1896-97	6,620,000	48,359,700	1896-97	48,021,462	275,676,100
1897-98	6,935,200	47,991.700	1897-98	52,205,466	498,350,700
1898-99	7,166,000	54,946,700	1898-99	52,682,050	505,640 600
1899-1900	6,429,000	39,437,100	1899-1900	51,969,635	451,553,460
1900-01	6,503,000	48,453,200	1900-01	49,915,913	435,822,000

WHEAT

Province	Area in acres	Yield in tons	Province	Area in acres	Yield in tons
Panjab			*Bombay (including Native States)*		
1891-92	6,224,000	1,420,000	1891-92	2,176,000	426,000
1892-93	7,020,000	2,213,000	1892-93	2,475,000	654,000
1893-94	8,265,000	2,560,000	1893-94	2,525,000	762,000
1894-95	8,051,800	2,395,353	1894-95	2,678,665	744,961
1895-96	6,893,400	1,753,766	1895-96	2,288,838	454,865
1896-97	6,584,300	1,872,066	1896-97	1,446,741	288,002
1897-98	8,013,800	2,358,975	1897-98	2,004,832	627,914
1898-99	7,729,200	1,977,777	1898-99	2,470,998	737,385
1899-1900	6,366,500	1,823,182	1899-1900	1,157,077	99,408
1900-01	8,766,400	2,940,602	1900-01	1,212,598	268,451
North-Western Provinces and Oudh			*Berar*		
1891-92	4,692,000	1,579,000	1891-92	888,000	78,000
1892-93	4,641,000	1,844,000	1892-93	985.000	76.000
1893-94	4,827,000	1,473,000	1893-94	928,000	97,000
1894-95	4,627,816	1,141,297	1894-95	889,326	81,882
1895-96	3,896,406	1,236,486	1895-96	747,025	48,549
1896-97	3,772,820	1,460,340	1896-97	381,425	11,841
1897-98	4,537,351	1,773,488	1897-98	390,378	25,511
1898-99	4,818,528	1,808,516	1898-99	436,362	21,892
1899-1900	4,794,451	1,950,814	1899-1900	17,910	251
1900-01	5,294,850	1,987,000	1900-01	243,554	5,093
Central Provinces			*Sind (including Native States)*		
1891-92	3,904,000	760,000	1891-92	483,000	117,000
1892-93	4,197,000	762,000	1892-93	604,000	204,000
1893-94	3,986,000	575,000	1893-94	531,000	161,000
1894-95	3,393,348	502,275	1894-95	673,251	215,361
1895-96	2,714,454	368,038	1895-96	315,559	71,683
1896-97	1,969,623	332,645	1896-97	406,752	116,470
1897-98	2,171,714	543,095	1897-98	591,621	177,160
1898-99	2,505,299	456,169	1898-99	369,706	81,231
1899-1900	1,633,070	201,803	1899-1900	364,522	68,226
1900-01	2,018,290	432,440	1900-01	473,251	116,400

(a) Not stated

WHEAT—*continued*

Province	Area in acres	Yield in tons
Bengal		
1891-92	1,300,000	250,000
1892-93	1,559,000	466,000
1893-94	1,461,000	459,000
1894-95	1,413,000	686,300
1895-96	1,427,400	345,600
1896-97	1,311,700	386,100
1897-98	1,569,500	592,600
1898-99	1,582,500	656,400
1899-1900	1,550,300	572,700
1900-01	1,604,100	507,000
Rajputana		
1891-92	1,471,000	362,000
1892-93	1,604,000	431,000
1893-94	1,646,000	389,000
1894-95	1,529,146	368,168
1895-96	1,306,868	315,573
1896-97	1,374,346	293,932
1897-98	1,302,233	307,062
1898-99	1,196,014	276,388
1899-1900	360,733	79,289
1900-01	713,290	170,682
Central India		
1891-92	2,040,126	898,139
1892-93 (*a*)	1,639,485	278,340
1893-94 (*a*)	1,537,143	227,819
1894-95	2,042,531	396,567
1895-96	1,740,608	290,745
1896-97	1,366,269	179,949
1897-98	1,501,013	279,492
1898-99	1,613,851	287,749
1899-1900	692,950	100,276
1900-01	1,239,063	213,557

Province	Area in acres	Yield in tons
Hyderabad		
1891-92	1,942,824	96,238
1892-93	1,260,272	97,062
1893-94	1,166,000	109,000
1894-95	1,527,415	74,034
1895-96	1,561,698	92,885
1896-97	852,643	23,010
1897-98	1,091,595	33,170
1898-99	1,196,520	35,604
1899-1900	419,633	1,979
1900-01	748,163	14,833
Mysore		
1891-92	2,125	154
1892-93	2,640	189
1893-94	(*b*)	(*b*)
1894-95	4,534	304
1895-96	5,456	363
1896-97	3,871	413
1897-98	4,363	331
1898-99	4,029	492
1899-1900	2,758	254
1900-01	2,556	197
Total		
1891-92	25,223,075	5,986,531
1892-93	25,987,397	7,025,591
1893-94	26,872,143	6,812,819
1894-95	26,830,862	6,406,502
1895-96	22,897,712	4,978,553
1896-97	19,500,490	4,965,305
1897-98	23,178,400	6,718,798
1898-99	23,923,007	6,339,603
1899-1900	17,359,904	4,898,182
1900-01	22,316,115	6,656,264

COTTON

Province	Area in acres	Yield in bales of 400 lb
Bombay (including Native States)		
1891-92	5,136,000	683,000
1892-93	5,286,400	946,400
1893-94	5,910,900	927,100
1894-95	5,292,717	782,497
1895-96	5,303,598	915,575
1896-97	5,033,549	723,587
1897-98	4,751,103	834,004
1898-99	5,098,145	1,101,039
1899-1900	3,095,206	78,967
1900-01	3,791,097	633,915
Berar		
1891-92	2,244,000	302,000
1892-93	2,186,600	186,800
1893-94	2,184,800	162,500
1894-95	2,102,956	116,289
1895-96	2,071,856	235,268
1896-97	2,306,870	137,823
1897-98	2,150,329	185,965
1898-99	2,476,306	177,542
1899-1900	1,983,602	21,115
1900-01	2,521,651	272,276

Province	Area in acres	Yield in bales of 400 lb
Madras		
1891-92	1,243,000	80,000
1892-93	1,326,200	103,600
1893-94	1,724,000	121,200
1894-95	1,521,500	106,950
1895-96	1,623,900	120,524
1896-97	1,395,400	104,655
1897-98	1,509,100	118,876
1898-99	1,321,700	127,670
1899-1900	1,382,700	101,440
1900-01	1,403,000	119,880
Hyderabad		
1892-93	1,719,573	306,194
1893-94	1,593,113	321,591
1894-95	1,456,283	229,085
1895-96	1,607,792	326,879
1896-97	1,558,296	86,292
1897-98	1,653,669	97,586
1898-99	1,738,379	115,644
1899-1900	1,292,329	33,509
1900-01	1,698,836	88,528

(*a*) Incomplete

(*b*) No information

COTTON—*continued*

Province	Area in acres	Yield in bales of 400 lb
North-Western Provinces and Oudh		
1891-92	1,250,000	118,000
1892-93	1,045,100	118,000
1893-94	1,311,500	179,700
1894-95	1,492,084	141,506
1895-96	1,312,673	200,821
1896-97	1,423,924	182,127
1897-98	1,140,206	168,898
1898-99	1,151,654	189,668
1899-1900	1,212,794	160,410
1900-01	1,265,029	215,034
Panjab		
1891-92	498,000	112,000
1892-93	549,900	118,200
1893-94	948,300	200,900
1894-95	1,124,500	231,997
1895-96	1,161,200	241,667
1896-97	1,176,700	204,806
1897-98	1,128,400	223,947
1898-99	788,600	166,707
1899-1900	988,400	138,926
1900-01	1,215,700	205,654
Central Provinces		
1891-92	738,000	52,000
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	668,237	121,619
1899-1900	712,651	63,145
1900-01	1,008,132	190,616
Rajputana		
1891-92	517,000	117,000
1892-93	500,400	133,300
1893-94 (*b*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	478,604	117,743
1899-1900	325,033	44,161
1900-01	369,384	104,390

Province	Area in acres	Yield in bales of 400 lb
Central India		
1893-94(*c*)	295,300	95,800
1894-95	512,936	114,060
1895-96	420,239	148,640
1896-97	522,683	137,840
1897-98	417,456	181,864
1898-99	471,408	140,311
1899-1900	479,565	69,210
1900-01	526,141	187,870
Bengal		
1892-93	231,800	31,300
1893-94	216,000	30,400
1894-95	203,700	33,489
1895-96	197,900	28,009
1896-97	157,100	20,164
1897-98	174,000	29,890
1898-99	167,900	25,973
1899-1900	160,600	23,149
1900-01	153,700	29,875
Sind (including Native States)		
1891-92	104,000	33,000
1892-93	69,800	32,400
1893-94	115,800	64,400
1894-95	113,589	47,264
1895-96	111,855	43,730
1896-97	123,706	48,595
1897-98	108,227	34,437
1898-99	92,312	34,039
1899-1900	92,069	17,577
1900-01	89,818	41,447
Burma		
1898-99	167,821	—
1899-1900	148,563	32,900
1900-01	143,158	21,077
Total		
1891-92	11,730,000	1,497,000
1892-93	13,567,973	2,062,094
1893-94	15,608,013	2,354,891
1894-95	15,041,611	2,069,052
1895-96	14,866,954	2,517,915
1896-97	14,965,650	1,878,331
1897-98	14,243,772	2,132,070
1898-99	14,621,066	(*d*)2,317,955
1899-1900	11,873,512	784,509
1900-01	14,185,646	2,110,562

LINSEED

Province	Area in acres	Yield in tons
Bengal		
1892-93	805,700	121,900
1893-94	777,100	131,800
1894-95	732,900	120,900
1895-96	712,700	95,600
1896-97	587,800	84,900
1897-98	662,800	125,400
1898-99	677,900	144,700
1899-1900	653,200	126,700
1900-01	654,000	103,800

Province	Area in acres	Yield in tons
North-Western Provinces and Oudh		
1891-92	622,000	110,000
1892-93	481,000	74,000
1893-94	742,000	101,000
1894-95	753,857	69,165
1895-96	403,565	55,796
1896-97	235,166	40,036
1897-98	519,461	110,619
1898-99	428,728	87,854
1899-1900	357,880	73,267
1900-01	448,206	75,780

(*a*) Exclusive of the zamindári area in Raipur, Biláspur, and Sambalpur
(*b*) Exclusive of Tonk
(*c*) Exclusive of the greater part of the Bhopal Agency
(*d*) Incomplete

NOTE—Linseed grown in the same field with other crops in the North-Western Provinces and Oudh is not included

LINSEED—*continued*

Province	Area in acres	Yield in tons
Central Provinces		
1891-92	1,388,000	112,000
1892-93	1,384,000	134,000
1893-94	1,788,000	132,000
1894-95	1,498,672	42,532
1895-96	730,750	45,253
1896-97	527,421	19,391
1897-98	683,728	69,783
1898-99	838,255	58,955
1899-1900	306,933	4,319
1900-01	492,235	20,690
Hyderabad		
1896-97	324,455	11,355
1897-98	438,030	15,141
1898-99	426,045	13,443
1899-1900	171,970	1,506
1900-01	371,983	8,648
Berar		
1891-92	364,000	35,000
1892-93	354,000	21,000
1893-94	578,000	29,000
1894-95	385,563	13,893
1895-96	500,650	27,497
1896-97	188,142	4,576
1897-98	180,472	10,405
1898-99	171,085	7,683
1899-1900	21,564	—
1900-01	154,716	5,382
Bombay (including Native States)		
1891-92	270,000	19,000
1892-93	233,000	25,000
1893-94	402,000	52,000
1894-95	410,692	25,508
1895-96	606,428	63,261
1896-97	157,763	2,221
1897-98	223,396	23,646
1898-99	277,462	23,975
1899-1900	137,356	428
1900-01	99,804	2,236
Rest of India		
1891-92	567,000	114,000
1892-93	567,000	114,000
1893-94	567,000	114,000
Total		
1891-92	3,211,000	390,000
1892-93	3,824,700	489,900
1893-94	4,854,100	559,800
1894-95	3,781,684	271,798
1895-96	2,954,093	287,407
1896-97	2,020,747	162,479
1897-98	2,707,887	354,994
1898-99	2,829,475	336,610
1899-1900	1,648,903	206,220
1900-01	2,220,944	216,536

RAPE AND MUSTARD

Province	Area in acres	Yield in tons
Bengal		
1892-93	2,256,000	372,300
1893-94	2,209,100	334,200
1894-95	2,221,600	343,700
1895-96	2,148,400	332,400
1896-97	2,003,900	312,300
1897-98	2,289,700	438,600
1898-99	2,167,200	448,200
1899-1900	2,032,900	371,900
1900-01	2,055,500	339,800
Panjab		
1891-92	594,000	68,000
1892-93	850,000	135,000
1893-94	900,000	112,000
1894-95	802,600	97,224
1895-96	475,100	50,602
1896-97	515,300	52,756
1897-98	1,112,300	142,115
1898-99	582,600	56,041
1899-1900	397,500	26,761
1900-01	1,638,400	248,022
North-Western Provinces and Oudh		
1891-92	132,000	32,000
1892-93	126,000	27,000
1893-94	131,000	21,000
1894-95	109,347	16,497
1895-96	95,678	26,554
1896-97	83,372	18,524
1897-98	88,822	28,417
1898-99	92,679	22,884
1899-1900	76,180	21,186
1900-01	94,130	24,060
Hyderabad		
1896-97	1,994	73
1897-98	3,828	140
1898-99	8,796	286
1899-1900	905	6
1900-01	16,597	206
Sind (including Native States)		
1891-92	169,000	22,000
1892-93	140,000	20,000
1893-94	111,000	17,000
1894-95	222,413	24,852
1895-96	53,664	8,503

NOTE—Rape and mustard grown in the same field with other crops in the North-Western Provinces and Oudh are not included

RAPE AND MUSTARD—*continued*

Province	Area in acres	Yield in tons
Sind (including Native States) —continued		
1896-97	72,093	11,101
1897-98	154,248	27,277
1898-99	70,766	8,601
1899-1900	64,637	6,193
1900-01	129,765	17,540
Assam		
1891-92	168,000	36,000
1892-93	170,000	45,000
1893-94	168,000	34,000
1894-95	134,399	20,249
1895-96	182,640	36,388
1896-97	178,408	38,853
1897-98	167,268	31,878
1898-99	134,856	21,891
1899-1900	119,110	21,789
1900-01	126,309	21,140
Bombay (including Native States)		
1891-92	44,000	7,000
1892-93	65,000	13,000
1893-94	89,000	18,000
1894-95	91,822	18,509
1895-96	49,431	7,617
1896-97	55,615	8,207
1897-98	56,830	14,380
1898-99	53,091	9,795
1899-1900	2,536	111
1900-01	37,755	6,391
Rest of India		
1891-92	68,000	10,000
1892-93	68,000	10,000
1893-94	68,000	10,000
Total		
1891-92	1,175,000	175,000
1892-93	3,675,000	622,300
1893-94	3,676,100	546,200
1894-95	3,582,181	521,031
1895-96	3,004,913	462,064
1896-97	2,910,682	441,814
1897-98	3,822,996	682,807
1898-99	3,109,988	567,698
1899-1900	2,693,768	447,946
1900-01	4,098,456	657,159

SESAMUM

Province	Area in acres	Yield in tons
Madras		
1891-92	501,000	(*a*) 4,900
1892-93	318,600	(*a*) 5,522
1893-94	296,300	(*a*) 5,290
1894-95	613,600	16,739
1895-96	824,700	22,507
1896-97	562,800	14,830
1897-98	826,000	24,100
1898-99	690,700	25,900
1899-1900	665,900	19,300
1900-01	845,000	28,100
Bombay (including Native States)		
1891-92	590,000	79,000
1892-93	703,500	105,500
1893-94	668,600	78,900
1894-95	754,072	100,438
1895-96	843,039	98,104
1896-97	770,553	65,600
1897-98	681,905	103,136
1898-99	754,327	115,566
1899-1900	303,148	6,186
1900-01	831,285	138,087
Central Provinces		
1891-92	456,000	17,000
1892-93	503,000	33,000
1893-94	534,700	31,300
1894-95	520,099	27,714
1895-96	569,407	45,243
1896-97	627,948	43,953
1897-98	749,491	67,770
1898-99	634,268	43,475
1899-1900	1,026,257	62,132
1900-01	1,059,230	88,564
Bengal		
1894-95	356,200	43,365
1895-96	368,900	35,930
1896-97	332,500	30,765
1897-98	367,500	49,800
1898-99	360,400	51,100
1899-1900	385,200	48,973
1900-01	392,600	50,204
Panjab		
1891-92	122,000	15,000
1892-93	204,500	25,900
1893-94	234,800	25,900
1894-95	319,200	31,917
1895-96	189,400	18,772
1896-97	223,400	21,379
1897-98	195,400	22,984
1898-99	252,600	25,350
1899-1900	216,400	16,253
1900-01	183,200	19,077
North-Western Provinces and Oudh		
1891-92	142,000	8,000
1892-93	152,600	14,700
1893-94	200,600	19,700
1894-95	177,043	15,513
1895-96	148,833	14,554
1896-97	177,785	12,222
1897-98	147,817	14,994
1898-99	155,178	15,159
1899-1900	203,604	22,743
1900-01	237,664	28,431

(*a*) Incomplete

SESAMUM—*continued*

Province	Area in acres	Yield in tons
Sind (including Native States)		
1891-92	103,000	(*a*) 7,800
1892-93	109,500	10,516
1893-94	177,740	12,309
1894-95	191,040	15,892
1895-96	151,038	12,052
1896-97	183,873	12,384
1897-98	154,812	8,260
1898-99	114,129	8,285
1899-1900	158,957	7,323
1900-01	117,439	5,446
Berar		
1891-92	123,000	6,300
1892-93	115,100	4,000
1893-94	85,300	3,200
1894-95	69,715	2,359
1895-96	76,155	2,704
1896-97	103,298	3,515
1897-98	135,164	6,573
1898-99	135,483	5,620
1899-1900	116,089	1,436
1900-01	149,022	9,554
Hyderabad		
1896-97	387,041	13,005
1897-98	404,020	13,200
1898-99	426,740	14,463
1899-1900	237,512	2,383
1900-01	392,032	10,119
Total		
1891-92	2,037,000	138,000
1892-93	2,106,800	199,138
1893-94	2,198,040	176,599
1894-95	3,000,969	253,937
1895-96	3,171,472	249,866
1896-97	3,369,198	217,653
1897-98	3,662,109	310,817
1898-99	3,523,825	304,913
1899-1900	3,313,067	186,729
1900-01	4,207,472	377,582

JUTE

Province	Area in acres	Yield in bales of 400 lb
Bengal		
1891	1,403,445	(*b*)2,971,794
1892	2,135,142	5,717,444
1893	2,222,600	5,001,700
1894	2,264,300	6,144,300
1895	2,242,700	6,425,900
Bengal—continued		
1896	2,196,600	5,032,000
1897	2,151,600	6,189,200
1898	1,624,400	4,115,500
1899	1,961,800	5,000,000
1900	2,043,400	6,000,000

INDIGO

Province	Area in acres	Yield in cwt
Bengal		
1892-93	645,950	92,006
1893-94	648,928	67,285
1894-95	629,100	104,485
1895-96	552,700	73,133
1896-97	582,200	56,671
1897-98	529,500	50,415
1898-99	512,100	74,321
1899-1900	449,200	44,996
1900-01	361,100	47,721
North-Western Provinces and Oudh		
1891-92	201,269	20,533
1892-93	206,516	26,545
1893-94	349,980	38,106
1894-95	420,242	41,524
1895-96	342,102	33,786
1896-97	436,601	40,713
1897-98	376,899	37,545
1898-99	240,418	26,416
1899-1900	231,400	17,977
1900-01	271,396	31,529
Madras		
1891-92	166,130	18,540
1892-93	301,000	50,420
1893-94	442,400	58,100
1894-95	514,500	67,480
1895-96	414,900	63,680
Madras—continued		
1896-97	454,700	50,740
1897-98	323,900	61,460
1898-99	210,600	30,320
1899-1900	249,000	33,340
1900-01	215,700	39,480
Panjab		
1891-92	52,200	9,256
1892-93	65,300	10,085
1893-94	110,700	15,946
1894-95	124,200	24,005
1895-96	104,300	20,325
1896-97	135,400	20,549
1897-98	108,300	17,392
1898-99	47,200	8,263
1899-1900	97,300	15,577
1900-01	115,700	22,693
Total		
1891-92	419,599	148,329
1892-93	1,218,766	179,056
1893-94	1,552,008	179,437
1894-95	1,688,042	237,494
1895-96	1,414,002	190,924
1896-97	1,608,901	168,673
1897-98	1,339,099	166,812
1898-99	1,010,318	139,320
1899-1900	1,026,900	111,890
1900-01	963,896	141,423

(*a*) Incomplete

(*b*) Approximate

EARTHNUT

Province	Area in acres	Yield in tons		Area in acres	Yield in tons
Madras			*Total*		
1895-96 . .	216,200	(*a*)	1895-96 . .	(*c*) 216,200	(*a*)
1896-97 . .	124,800	(*a*)			
1897-98 . .	83,600	(*a*)	1896-97 . .	273,526	(*a*)
1898-99 . .	116,200	(*a*)			
1899-1900 . .	102,000	(*a*)	1897 98 . .	203,903	(*d*)55,962
1900-01 . .	211,000	(*a*)			
Bombay (including Native States)			1898-99 . .	217,814	(*d*)70,561
1896-97 . .	148,726	(*a*)			
1897-98 . .	120,303	(*b*) 55,962			
1898-99 . .	101,614	70,561	1899-1900 .	173,946	(*d*)9,250
1899-1900 . .	71,946	9,250			
1900-01 . .	50,401	21,794	1900-01 . .	261,401	(*d*) 21,794

SUGARCANE

Province	Area in acres	Yield in tons	Province	Area in acres	Yield in tons
Bengal			*Madras*		
1898-99 . .	861,100	871,435	1898-99 . .	45,500	(*a*)
1899-1900 . .	884,400	817,185			
1900-01 . .	867,900	897,410	1899-1900 . .	54,400	(*a*)
North-Western Provinces and Oudh			1900-01 . .	55,500	(*a*)
1898-99 . .	1,227,881	1,204,799			
1899-1900 . .	1,259,070	838,885	*Total*		
1900-01 . .	1,206,431	1,193,214	1898-99 . .	2,502,381	(*d*)2,076,234
Panjab					
1898-99 . .	367,900	(*a*)	1899-1900 . .	2,563,570	(*d*)1,852,801
1899-1900 . .	365,700	196,731			
1900-01 . .	355,500	446,970	1900-01 . .	2,485,331	(*d*) 2,537,594

(*a*) No information (*b*) Excluding Native States (*c*) Madras only (*d*) Incomplete

G. I. C. P. O.—62 D. G. S.—16-7-1901,—640.—H. R.

Four[t]h issue]

AREA AND YIELD

OF

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

SUGARCANE

FOR VARIOUS PERIODS FROM

1891-92 TO 1901-02

CALCUTTA
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NOTE

THE Government of India issue periodically during the year estimates of the yield of certain crops compiled, from local statements, in the Statistical Department.

It has been the practice to issue a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two. The summaries in the present publication are a condensation of the final estimates, presenting in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables, abstracted from the tables appended to the final estimates, in which are stated the area and the estimated yield of the crops. The figures, as is well known, are not complete. Those received from Madras, for instance, do not include the zamindári area, that is, the area of large proprietary estates, which constitutes a third of the Presidency, and the figures received from the Native States are also generally very defective. It should be noted too that reports are received only from provinces in which the crop is extensively grown; for instance, estimates of the yield of rice are received only from Burma, Bengal, and Madras.

J. E. O'CONOR

July 12, 1902 *Director-General of Statistics*

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SUMMARY OF THE CONDITIONS OF THE SEASON FROM 1891-92 TO 1901-02

RICE

1891-92

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. Deficient rain during the early part of the season also affected the autumn crop.

In Madras too the season was adverse, the rain failing over large areas.

In Burma conditions were satisfactory.

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.

In Burma conditions were good everywhere.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.

In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable.

1894-95

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.

In Madras the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.

In Burma the crop suffered somewhat from insufficient rain.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.

In Madras the crop generally was fair, though in some places in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.

In Burma the season was favourable and the crop excellent.

1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

RICE

1898-99 In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900 In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01 In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

1901-02 In Bengal the season was not entirely favourable for the autumn rice. From April to August the rainfall was unevenly distributed, and in July it was deficient almost everywhere. General and copious rain fell in September, but in October the rains ceased abruptly. For the winter rice the season was more unfavourable. The abrupt termination of the monsoon in September, for there was very little general rain in October, did great injury to the crop, and in all the Bihar districts, where the rainfall in June was also very deficient, it was a failure. The weather was seasonable during transplantation which led to an increase in the area sown.

In Madras the season was not so favourable for early planting as in 1900, but owing to good supplies of water from the irrigation works and generally good rain in August and September an area about equal to the average yielded a crop rather more than the average of recent years.

In Burma conditions were favourable. Rain fell at the end of the first week in February, but the crop, which was greatly in excess of the average, was but very slightly injured.

WHEAT

1891-92 In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts in February, injured the crop.

In the United Provinces of Agra and Oudh heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth, and the crop was injured by early west winds in some parts of Bihar and north and east Bengal.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnátak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture.

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the United Provinces of Agra and Oudh the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and was favourable to germination. The winter rains benefited the crop, especially on unirrigated land.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the United Provinces of Agra and Oudh the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

In Bombay the monsoon rainfall was excessive for kharif sowings and the area left unsown was utilised for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the United Provinces of Agra and Oudh the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable, and rust was common.

In the Nizam's Territory heavy rain late in the season reduced the yield.

1895-96

In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the United Provinces of Agra and Oudh the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

WHEAT

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

1896-97

In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March, and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the United Provinces of Agra and Oudh the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In the Nizam's Territory the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second half of May damaged the grain on the threshing-floors.

In the United Provinces of Agra and Oudh the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

In Bengal the season was favourable; the autumn rain was copious and well distributed, and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In the Nizam's Territory the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the United Provinces of Agra and Oudh the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable: the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second half of September retarded sowings and produced defective germination. No rain

fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient inundation and scanty rainfall.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In the Nizam's Territory the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the third week of January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the United Provinces of Agra and Oudh the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attempted on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was an almost absolute failure.

In the Nizam's Territory the conditions and results were similar to those in Berar.

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands, and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail, floods, excessive rain, and water-logging, as also, when the damage was caused on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the United Provinces of Agra and Oudh the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield.

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarát rust, insects, and cloudy weather did harm. In the Deccan and Karnátak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

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In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

In the Nizam's Territory sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.

In Rajputana and Central India both area and yield were much below the average.

1901-02

In the Panjab the monsoon rainfall was less plentiful than usual and ceased early; the winter rains failed entirely. There were no late sowings, and the whole crop went practically without rain until the latter half of March when slight showers saved the withering crop from total destruction in some places. High winds and severe frost in February also proved detrimental to the standing crop, and the yield was decidedly below the average, even on irrigated lands. On unirrigated lands the failure was far more extensive. On lands irrigated by wells a considerable part of the crop was in some places used as fodder for cattle employed to work the wells. Some injury was done in places by hailstorms and by rust.

In the North-West Frontier Province the season throughout was one of unusual drought. From October to the end of February no rain fell and sowings on unirrigated lands were much reduced; the crop, where sown, in most cases withered away in March. A normal area was sown on irrigated lands which account for one-third of the crop of the season.

In the United Provinces of Agra and Oudh the monsoon of 1901 was abnormally delayed, and general rain did not set in until the 10th of July. The fall in July and August was well distributed and sufficient; but in the next two months it was deficient in the Meerut division and in parts of Agra and Rohilkhand where sowings in most places were effected with the aid of irrigation. November and the first three weeks of December were entirely rainless, and irrigation was resorted to wherever possible. The season was unusually dry and the unirrigated crop suffered generally from drought.

In Bengal the rainfall in Bihar was deficient in September and seriously in defect in October, and there was practically no rain until March, when it was too late to benefit the crop. There was a contraction in the area sown owing to drought at the sowing season in Bihar where the yield was much below the normal.

In the Central Provinces the season was abnormally dry, the October rain, on which the germination of wheat largely depends, being represented by only a few local showers, and there was no rain thereafter except in the first half of January in some places. Frost, rats, and insects also injured the crop.

In Bombay there was a contraction in the area sown owing to the deficiency of late rain. In Gujarat and North Deccan, the September rain was very deficient and sowings made little progress until after the October rains. No rain fell in November and December, and the crop suffered considerably not only from want of surface moisture, but also from the scanty supply in the wells. The surviving crop was further almost destroyed by a very severe plague of rats. In the South Deccan and the Karnátak, the September rain was generally sufficient but that in October was below the average and checked full sowings. Later rains were light and partial and the crop withered in many places, particularly in the eastern tracts where no rain fell and no irrigation was possible. Damage by insects and disease was also reported from a few places. The Sind crop was fairly good.

In Berar the monsoon rainfall was in excess of the normal, and although there were no winter rains, the moisture in the soil at sowing time was sufficient to promote the growth of the young plants and to bring the wheat satisfactorily into ear. At this stage, however, rats appeared in large numbers and did considerable injury, destroying in some localities almost the whole crop of the field in a single night.

In the Nizam's Territory conditions were at first somewhat favourable, but rats did considerable injury in places, and over a large area; the late rains were also not favourable.

In Rajputana both area and yield were much below the average. In Central India the area and yield were larger than the quinquennial average, but a little short of the decennial average.

COTTON

1891-92

In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July when rain was excessive. These conditions, and locusts, caused injury to both the early sowings and the late crop.

In the United Provinces of Agra and Oudh the weather conditions were the same as in the Panjab, with a worse result.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low land.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnátak. In Sind the overflow of the Indus was also late and irregular.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it.

1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the United Provinces of Agra and Oudh.

In the Central Provinces excessive and injurious rain fell in September and October.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

1893-94

In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the United Provinces of Agra and Oudh continued heavy rain from July to October, and strong winds, retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious but on the whole very beneficial.

In the United Provinces, on the other hand, the area was slightly below the average and heavy rain and stormy winds in October and November reduced the yield.

In Bengal owing to excessive rain the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

In the Central Provinces and in Berar the rains were heavy and injured the standing crop.

In Bombay the rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with the early and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains.

1895-96

In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that on irrigated land the crop was good, but poor on land dependent entirely on rain.

In the United Provinces of Agra and Oudh the rains were generally favourable to the crop, weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season proved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of seasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton. The area sown with the late crop was also below

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the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year. In Sind there was a deficiency of water.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which was inadequate and the crop was bad.

In the United Provinces of Agra and Oudh there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop, especially on unirrigated lands.

In Bengal the season was unfavourable, and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In the Nizam's Territory a restricted area was sown, and the crop was poor.

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the United Provinces of Agra and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season though a little late was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing "northern" and "western" varieties, but the lateness of the monsoon contracted the area in places where Tinnevelly and Salem cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In the Nizam's Territory the area sown was large, but owing to an unfavourable season, the yield was bad.

1898-99

In the Panjab the rainfall at sowing time was scanty, in August it was irregular and deficient, but favourable showers in September did much to develope and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted.

In the United Provinces of Agra and Oudh the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop.

In Bengal the season was unfavourable owing to the uneven character of the monsoon.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn.

In Berar dry weather in October and the failure of the late rains had a bad effect, but the yield was good.

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In the Nizam's Territory the monsoon was late at the commencement of the season, and though prospects were improved by rain in August and September, the yield was bad.

In Rajputana the season was on the whole unfavourable owing to insufficient rain; in Central India the crop did well.

1899-1900

In the Panjab the prospects of the crop were generally hopeful in the beginning of the season, and sufficient rain at sowing time and a good supply of canal water induced cultivators to sow an extensive area, a large proportion being on land irrigated by canals and wells. But with the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the United Provinces of Agra and Oudh excessive rain in June and July interfered with sowings and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was almost entirely lost.

In Bengal in the early part of the season the rainfall was irregularly distributed, and later it was on the whole inadequate, and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places and where it survived gave a very poor yield. In Sind the water supply was deficient and the yield poor.

In Madras the season was, on the whole, unfavourable and the yield very poor.

In the Nizam's Territory the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the United Provinces of Agra and Oudh the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received throughout the provinces, and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

In Bengal the rain in July was, on the whole, well distributed and fairly continuous. In August it was irregularly distributed and more or less in defect everywhere. Much more copious and general rain fell in September, but in October it was deficient in most places. The season was, on the whole, unfavourable to early cotton, though fairly favourable to the late cotton except at sowing time.

In the Central Provinces, in consequence of the relative cheapness of cotton seed, favourable conditions at sowing time, and good prices, a very extensive area was sown. The distribution of the rainfall left something to be desired. In some parts the plants were swamped by the heavy and continuous rain of August and September, especially in the richer soils and in low-lying positions. Heavy rain in September also injured the flowers and the absence of rain in October affected the crop in poor soils and high-lying fields, and owing to insufficient moisture the bolls withered before maturity.

In Berar the area under cotton was the largest known. The monsoon rainfall was better than for many years past. The early rains were somewhat deferred and sowings were later than usual, but the fall in June and July was normal; August was very wet and in September also the fall was excessive; but the rains closed abruptly at the end of that month. The cotton crop on poor soils suffered from lack of moisture, but on all rich black soils and in low-lying lands there was a heavy crop.

In Bombay early cotton in the Deccan and late cotton elsewhere, mainly in Gujarat, covered a restricted area, early rains being deficient and not allowing full sowings. The devotion of part of the usual cotton area to food-grains consequent on the scarcity of the preceding year also accounts for some of the decrease. The crop promised well at first, but afterwards it suffered from the deficiency of the late rains.

In Madras the north-east monsoon failed in some places and the area sown was also restricted by the preference given to the cultivation of food-grains. The crop was generally fair except in the Deccan districts, where *Northerns* and *Westerns* were affected by disease and want of rain.

COTTON OILSEEDS

In the Nizam's Territory with good rain at the sowing season for early cotton a large area was brought under cultivation, but late cotton did not receive sufficient rain; and in the Aurangabad division, which has the largest cotton area in the territory, the sudden cessation of the winter rains kept the crop back.

In Central India both area and yield were much in excess of the average.

In Burma heavy rains greatly injured the crop.

1901-02

In the Panjab the rainfall of May was beneficial to the crop, and the injurious effect of the long break in the rains in September and October was chiefly felt on unirrigated land. Some damage was also done by locusts, grasshoppers, and rats.

In the United Provinces of Agra and Oudh a very large area—the largest since 1894—was placed under cotton, although the rains were late, owing to the stimulus given by the high prices and the plentiful crop of the preceding year.

In Bengal the season was on the whole unfavourable by reason of deficient rain for the cotton crop, both early and late.

In the Central Provinces the germination of the crop, which was not sown under favourable conditions, was unequal, and a long break of the rains in the first half of July necessitated resowings to some extent in most of the important cotton-growing districts. Excessive rain in August did some injury which was not altogether made good by a timely break in the second half of September. Owing to the absence of rain after September, and the ravages of insects in October, the prospects of the crop materially deteriorated.

In Berar the monsoon rainfall was unusually heavy and continuous. It was not until the beginning of September that a break of any duration occurred and the crop then was suffering from excessive moisture; but three weeks of fine weather followed by timely showers brightened prospects considerably; and the clear cold weather of November and December brought the crop rapidly to maturity. Rats, however, caused much injury.

In Bombay there was some increase in the area sown with early and late cotton in the British districts of Gujarat and the Deccan, and in Baroda and other Gujarat States, owing to favourable early rains, but not enough to compensate for the large decline in Káthiáwár and Cutch and in the Karnátak districts, which resulted from the deficiency of rain at the sowing season. In Sind there was a small increase due to a better water-supply. In Gujarat the season began well, but the crop made little progress owing to the failure of the late rains. Afterwards locusts and rats materially injured the surviving crops.

In Madras the condition and prospects of the crop were, on the whole, fair, and unusually late rain in the Deccan districts considerably improved prospects there. On the other hand, late and subsequently very heavy rain retarded sowings in the south; both the area and the yield were, on the whole, below the average.

In the Nizam's Territory the rains were on the whole favourable.

In Central India and Rajputana the crop was good.

In Burma the season was not favourable owing to want of rain.

OILSEEDS

Linseed, rape, and mustard.

1891-92

In the Panjab the season was fairly good for oilseeds; and the area was the largest on record up to that year, but the yield disappointed expectation.

In the United Provinces of Agra and Oudh the season was mild and favourable to linseed, and rapeseed was free from fungoid disease: both crops, however, suffered to some extent from the lateness of the winter rains.

In Bengal the dryness of the season affected the crops, and reduced the areas considerably in most districts.

In the Central Provinces and Berar the season was on the whole favourable. In the former linseed suffered from the failure of the winter rains; while in the latter rain at sowing time was favourable, but the late rains were scanty.

In Bombay though a large area was sown with linseed in the north Deccan, the crop was everywhere poor owing to deficient rain, and in the Karnátak it was a complete failure from drought. The rapeseed crop in Gujarat and Sind was also injured by the dryness of the season, and the yield was very deficient.

1892-93

In the Panjab, where the oilseeds mature late, the winter rains were followed by a large increase in the area sown.

In the United Provinces of Agra and Oudh the expectations of a good crop were not realised owing to frost and wet weather in January and February.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was good.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. But on the whole both linseed and rapeseed did well.

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop.

In Assam the season was favourable.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair.

In the United Provinces of Agra and Oudh the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crops suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts.

In the Central Provinces the crop promised well in the earlier months, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much good.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being good. In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust.

In the Nizam's Territory excessive rain caused a contraction in places of the area sown, while in others timely rainfall promoted sowings.

In Assam the season was favourable for mustard.

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts.

In the United Provinces of Agra and Oudh the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was poor.

In the Nizam's Territory the winter rains injured the crop.

The area under mustard in Assam was small and the yield inferior, owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite as bad in the Panjab, Sind, the United Provinces of Agra and Oudh, and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95 when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northern India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other hand, was more or less contracted everywhere except in the Nizam's Territory, and the contraction was very material in the Panjab, the United Provinces of Agra and Oudh, Bombay, and Sind. The harvest, however, was good on the reduced area in the United Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a good crop.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts, but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In Northern India the winter rains were timely and sufficient

OILSEEDS

and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

The area sown with linseed was greatly contracted in the United Provinces of Agra and Oudh, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at sowing time. The yield was also bad especially in the Central Provinces and Berar, while in Bombay the crop almost entirely failed. In Bengal and the United Provinces of Agra and Oudh the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the United Provinces. The harvest, was generally fair. The short rainfall in Assam was unfavourable for sowing mustard and the yield was affected by the absence of rain during the period of growth.

1897-98

Conditions in the Panjab, the United Provinces, and Bengal were favourable at sowing, and although the area sown was restricted, except in the Panjab where the acreage under rapeseed was increased, the yield was good.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapeseed crop, however, did better in Bombay and Sind.

The mustard crop in Bengal and Assam was reduced in consequence of retarded sowings and deficient winter rains.

1898-99

In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage.

In the United Provinces of Agra and Oudh excessive moisture at sowing time and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; and injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda) in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains.

1899-1900

In the Panjab the early cessation of the monsoon, the dry autumn months, and the lateness and deficiency of the winter rains, had the natural result of diminished sowings and restricted yield of rapeseed. In some places no yield at all was obtained, the crop having been cut when green and eaten as a vegetable by the people or given as fodder to the cattle.

In the United Provinces of Agra and Oudh excessive rain in June and July was followed by a material deficiency in August and September, and the three following months were exceptionally dry; fortunately rain fell about the middle of January and did much good to both linseed and rapeseed.

In Bengal the season was not favourable to the cultivation of oilseeds. The rainfall in the autumn months was in defect, and the want of rain was felt in many districts at the time of sowing, while an excess in others interfered with the proper germination of the seeds. The usefulness of the rain which fell in January was qualified by the injury done in some places by hail.

In Assam the late subsidence of the floods, combined with the late cessation of the rains, interfered with timely sowings, but the yield was good owing to favourable weather after the crop was sown.

In the Central Provinces, the want of moisture in the soil at sowing time, and the absence of the winter rains, told upon linseed seriously. Germination was exceedingly defective, and the plants which came up yielded but little seed.

In Bombay linseed was a complete failure in Gujarat, no sowings being possible in consequence of the failure of the rains. In the Deccan and other parts of the Presidency, the conditions were hardly better. The rapeseed crop was also practically a complete failure, some return having been obtained only in Cutch.

In Berar also linseed was a disastrous failure. Even the best black soil failed to retain enough moisture to nourish the crop, and the plants withered before reaching maturity.

In the Nizam's Territory, which is subject to climatic conditions resembling those of Berar and Bombay, linseed, rapeseed, and mustard all did very badly.

1900-01

In the Panjab the season was most favourable for rapeseed. The monsoon rains were abundant and the winter rains fell at opportune intervals, both for sowing and maturing. The area under the seed was more than double the average, and the yield very large.

In the United Provinces of Agra and Oudh the rainfall of the monsoon was abnormally heavy towards the end of the season, and the winter rains were also excessive and prolonged. The moisture in the soil was ample at the sowing season, and consequently the area sown was extended. But though the moisture permitted of the sowing of seed in a fairly large way, the excessive and prolonged continuance of the rain and cloudy weather generated fungoid diseases, and the crop was seriously affected by them in many districts, the yield in the localities affected being hardly more than half the normal crop.

In Bengal the monsoon rains were fitful and irregular, falling in abnormal quantity towards the end of the season, while the winter rain in January and February was also much in excess of the normal. On the whole the season was unfavourable to the oilseed crops, which suffered from an excess of rain in many districts and from comparative drought in others.

In Assam the mustard crop suffered in most districts from the absence of rain during the period of growth.

In the Central Provinces the continuous rain during August and September interfered with the preparation of land, whilst the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and except in Nagpur, prospects were favourable until the continued cloud and rain in January and February induced rust which caused great injury. The unfavourable conditions after January told seriously upon linseed.

In Bombay linseed is mostly grown in the Deccan and Karnátak, and in both tracts the crop suffered so greatly from the absence of moisture owing to scanty rain as to be an almost complete failure. Rapeseed did better in Gujarat, but this crop is of much more importance in Sind, where the area sown was in excess of the average and a fair yield was expected.

In Berar the area sown with linseed was far below the average. After the year of famine during which both food-stocks and credit were exhausted, the general inclination of the cultivators was to obtain as early a crop as possible, and larger areas were devoted to the autumn crops, notably jawar and cotton. The monsoon rainfall was in excess of the average, but the ground had been so thoroughly parched by the failure of the rains of 1899 that the moisture was rapidly absorbed and was inadequate for the successful growth of linseed. No rain fell after sowings had been completed, the rain of January came too late to be of any material benefit, and the yield was poor.

In the Nizam's Territory an extensive area, not materially smaller than the average, was placed under linseed, but the conditions of the season were unfavourable, as in Berar.

1901-02

In the Panjab the rainfall of the monsoon of 1901 ceased early and was not as abundant as usual. The winter rains failed entirely, and high winds and severe frosts in February proved detrimental to the crop, which was only saved from destruction in some places by slight showers in the second half of March. The absence of rain throughout the season was more unfavourable for oilseeds than for wheat as the former are harvested earlier, and they did not therefore derive any benefit from the rains in the latter part of March. Owing to the absence of rain in the sowing season, a very small area was sown with oilseeds, while sources of artificial irrigation were devoted chiefly to superior crops. Rape was in some fields sown with wheat, and the contraction of wheat sowings affected this crop also. The crop on unirrigated lands gave extremely poor results generally and failed entirely in several localities. On irrigated lands also the crop was below the average.

In the North-West Frontier Province, as in the Panjab, the season was most unfavourable for rapeseed. There was a decline in the area sown owing to the failure of the winter rains and to the short supply of irrigation from canals and hill torrents.

In the United Provinces of Agra and Oudh the autumn rains in the latter half of the season were insufficient in the Meerut division, and in parts of the Agra and Rohilkhand divisions; in the rest of the provinces conditions at seed-time were less unfavourable. The winter rains were scanty, only light rain having fallen towards the close of December and the beginning of January. Linseed is generally sown after an autumn crop, and, as the soil was too dry for sowing without previous irrigation, the area sown with this seed declined largely; but the area and yield of rapeseed were larger than the average.

In Bengal the monsoon was weak, the deficiency being serious in the Bihar and Chota Nagpur divisions. On the whole, the season was unfavourable for oilseeds, especially in Bihar; and there was a decline in the area sown owing to drought in the sowing season.

In Assam the season was favourable for the mustard crop except for heavy rain at the end of November. The area sown was larger than usual, and the yield was almost equal to the average.

OILSEEDS

In the Central Provinces the absence of moisture in the soil at the sowing season and the failure of the winter rains told seriously upon the linseed crop. Germination was defective and the plants which came up yielded but little seed.

In Bombay the absence of moisture severely injured the linseed crop, and its ruin was completed by rats, which destroyed nine-tenths of the crop in Khandesh. As regards rapeseed, the conditions in Sind where the crop is mostly grown were fairly good, but in Gujarat the crop was almost a complete failure by reason of drought and the destructive activity of rats.

In Berar there was no winter rain, but the season was favourable for sowing and in most localities the seed germinated freely and prospects were good; but considerable injury was done by rats, and these prospects were not realised.

In the Nizam's Territory the area was slightly smaller than the preceding year, but a little larger than the average. The yield was smaller than the average owing to the unfavourable character of the latter part of the monsoon.

Sesamum (til or jinjili)

1891-92

In the Panjab the season was decidedly unfavourable, the late arrival of the monsoon, causing a reduction in the area sown. The crop was damaged by locusts, and the yield was very poor.

In the United Provinces of Agra and Oudh the monsoon rain was quite abnormal, light in the beginning, but excessive at the latter end of the season. The area and yield were both small.

In the Central Provinces the season was unfavourable and sowings were greatly restricted. The crop was very poor.

In Bombay the rain at sowing time was favourable, but the growing crop suffered from drought as well as from excess of moisture in places. In Sind a low inundation and locusts affected both area and yield.

In Berar excessive rain and insects injured the crop, though its condition was favourable in some districts owing to sufficient and seasonable rain.

In Madras the area and yield were reduced by the unfavourable character of the season.

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July stimulating sowing. The yield was very good.

In the United Provinces of Agra and Oudh sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop.

In Bombay there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was better than in the preceding year. In Sind the harvest was bad.

In Berar unfavourable rain and the rotation of crops caused a decrease in the area sown. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In Madras, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the sown area; but the yield was small.

In the United and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the United than in the Central Provinces

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was not good. In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

In Berar the early sowings were impeded by deficient, and the later sowings by excessive, rainfall; and excess of rain in September injured prospects.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop good.

In the Nizam's Territory the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield.

In the United and Central Provinces the season began well, but injury was afterwards done by excessive rains, especially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the United Provinces the loss occasioned by the rains was considerable.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was deficient owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower. In Sind with favourable rain and an extensive inundation the yield was fairly good.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower, and the yield was generally poor.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The early cessation of the north-east monsoon rainfall restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was very poor.

1895-96

In the Panjab the rainfall was unfavourable, and the crop on the whole was poor.

In the United Provinces of Agra and Oudh the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, but the season became adverse later by reason of deficient rain and the abnormal heat which prevailed to the end of November.

In Bombay a large area was sown, the rainfall being seasonable, but the crops, both early and late, suffered from want of moisture. In Sind scanty rain and a low inundation curtailed the area, and the young crop suffered from want of moisture.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was bad.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average on account of the excessive sowing of the early crop. Rain was too heavy in some places while it was deficient in others, and the yield from both crops was bad.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor.

In the United Provinces of Agra and Oudh the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands.

In the Central Provinces the area sown was large, but the crop generally fared bad except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In Bombay, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended from timely rain. The former crop suffered severely from drought, and the result was a poor yield. The latter did not suffer so much.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food crops accounted for a contraction of the area sown in most provinces.

The yield varied greatly from about an average crop in Bombay, the United Provinces, and the Panjab, to greatly below the average in Madras, Sind, and the Nizam's Territory.

In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

OILSEEDS

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the United Provinces of Agra and Oudh the area sown was restricted, and excessive rain towards the latter part of the season deteriorated prospects.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere, which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was large.

In Berar sowings were made under favourable seasonal conditions, and, though the crop was injured by the failure of the late rains, the yield was large.

In Madras the season was favourable for the late crop, and it grew in good conditions on an extended area. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded a poor crop.

1899-1900

In the Panjab the season opened very well, but became more unfavourable as the months passed, and the yield was small.

In the United Provinces of Agra and Oudh the excessive rainfall in the beginning of the season gave rise to apprehensions regarding the prospects of the crop, and later the crop was damaged by continued drought in the Meerut, Agra, and Rohilkhand divisions, where, however, til is not extensively sown. In the tracts in which the cultivation of til is important, the moderate rainfall of August and September proved very beneficial and the yield there was good.

In Bengal on the whole the season was good enough, though the rains were irregular, excessive in some places and insufficient in others; and the yield was larger than the average.

In the Central Provinces the season favoured sowing operations, but it did not continue favourable, and the abnormal heat of November did much injury. The early crop was fairly successful, but the cold weather til in many places began to wither when on the point of maturity.

In Bombay the early rains were scanty and the later rains failed entirely. Owing to the extremely unfavourable nature of the season the crop withered away in many places and where it survived gave the poorest yield.

In Berar the crops withered under the drought and the excessive heat which followed.

In Madras the area sown was restricted, the south-west monsoon being unfavourable in most places, and the yield was not good.

In the Nizam's Territory the rains failed, and the crop withered under the drought which followed some good rain in September.

1900-01

In the Panjab the area sown was much below the average, heavy floods in some districts restricting sowings.

In the United Provinces of Agra and Oudh the monsoon began late and was generally scanty and unevenly distributed until the third week of August. Then and in September, excellent rain fell, and its distribution was all that could be desired, especially in Bundelkhand, where ordinarily four-fifths of the area under sesamum is grown. Except for heavy falls in Benares and Gorakhpur in the second week of October, the weather during that month and November was clear and seasonable.

In Bengal the monsoon rainfall was capricious and irregular, and, on the whole, the season was not favourable for oilseeds, which suffered from an excess of rain in many tracts, while in others they suffered from drought.

In the Central Provinces the conditions at the time of sowing, both of the early and late varieties, were generally favourable and a large area was sown. Sesamum is a cheap crop to sow, and it resists drought better than most crops. The difficulty of obtaining the relatively expensive seed of wheat and other spring crops stimulated its cultivation. The early crop suffered somewhat from the heavy rain at the close of August and during September. The germination of the late sown crop, which is more extensively grown in the south of the provinces, also was irregular, heavy rain just after sowing having washed away part of the seed. Drought during October and November, abnormal heat, and insects, following on cloudy weather, also injured the crop. In consequence the yield was smaller than the normal.

In Bombay the conditions were good in Káthiáwár at the time of sowing, and double the average area was sown, the increase there and in Gujarat more than making up for the contraction in other parts of the Presidency caused by the preference of cultivators for the cultivation of food-grains.

In Berar the rains at sowing time and the monsoon rains were favourable; there was no prolonged break, and the crop developed well under congenial climatic conditions.

In Madras the conditions were not good, and though a large area was sown the crop was deficient.

In the Nizam's Territory a few seasonable showers in January, which were badly needed, improved prospects.

1901-02

In the Panjab (including the North-West Frontier Province) the rainfall at sowing time was unevenly distributed, being excessive in some districts and insufficient in others. The yield was below the average owing chiefly to the early cessation of the monsoon rains.

In the United Provinces of Agra and Oudh rain commenced late, about the 10th of July; the weather in August was favourable and the rainfall above the normal in most districts; a break of about three weeks ensued early in September; but at the end of the month heavy rain was received in the greater part of the province. The second and the last weeks of October were rainless, but in the first and third weeks some rain fell in parts of the dry western districts. The month of November was practically rainless. Sowings were late, the drought in September retarded growth, and deficient rain in October caused further injury.

In Bengal there was no rain in December and January, and all the *rabi* crops suffered severely in consequence. A very restricted area was sown owing to drought at sowing time.

In the Central Provinces the rainfall was very unfavourable. The early sown variety suffered, especially in the north, from excessive rain, the crop being washed out in places while weeding was retarded or altogether prevented. The conditions were still more unfavourable for the late sown crop, which is put down at the end of August or during the first week of September. Continuous rain at this time interfered with sowings and much of the seed sown was washed out by heavy showers. Germination was very defective and many fields were ploughed up and devoted to other crops. The contraction of area sown was greatest in the Nagpur country, where the crop entirely failed over large tracts. A prolonged break subsequently occurred during which the young plants that germinated languished from want of proper moisture, and some injury was also caused by insects.

In Bombay the increase in the area sown in parts of Gujarat and Karnátak, due to favourable rains for sowing, was not sufficient to counterbalance the large decrease elsewhere, resulting mainly from the scantiness of sowing rains in the Presidency and to a low inundation in Sind. In Gujarat the season was very unfavourable owing to the failure of the late rains, while rats and locusts did some injury in places, and in consequence the crop was estimated to give only half the average yield. In the north of the Deccan, too, the crop suffered to some extent from the same causes, while in Sind it was affected by a deficient water-supply.

In Berar the monsoon rains were heavier than usual and the crop suffered from excessive moisture; during July and August the rainfall was almost continuous, and weeding operations were rendered impossible. Rats and locusts also attacked and injured the crop.

In Madras in the Circars, the Deccan districts, and the west coast the sowings were about up to the average, but owing to the unfavourable season they were very deficient elsewhere, especially in the Carnatic.

In the Nizam's Territory the area was above but the yield below the average, the late rains having been unfavourable.

JUTE

1891

The rainfall when sowings were being made was excessive, and the area placed under the crop was smaller than in the preceding year. Germination and growth were also affected by excessive rainfall. Later, again, the want of rain was felt in several districts.

1892

Excessive rainfall injured the plant in some districts, but on the whole the season was good, and a larger area was sown under the stimulus of high prices.

1893

The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season.

1894

Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first half of August the fall was favourable in every district.

1895

The rainfall was in excess of the normal quantity in April and the first half of May, heavy in the second half of May in east Bengal, and less than the average in other parts. In the next two months it was deficient, and in the first half of August it continued deficient in

JUTE
INDIGO

central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger.

1896 Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts.

1897 On the whole the season was favourable, and there was enough water for steeping.

1898 The area sown was smaller than in 1897, owing partly to the unfavourable character of the season at sowing time and partly to the low prices of jute in 1897 and to high prices of food-grains.

1899 The weather, though seasonable in the beginning, became extremely unfavourable towards the end of the season.

1900 There was some deficiency of rain in March and April, which prejudicially affected sowings in a few places. In May and the first fortnight of June, the rainfall was also light, but good rain later greatly improved the prospects of the crop. In July there was heavy rain in most districts, but a partial drought followed in August which, combined with a want of flood-water from the rivers, hampered steeping operations in north and east Bengal, and in a few cases diminished the yield. Fair rains fell in the first half of September, but almost too late to have much effect on the yield.

1901 The rainfall in the earlier months of the year was almost uniformly unfavourable. In June there was heavy rain in almost all the important jute-growing districts; in July the rainfall was very irregular but not seriously deficient; the rainfall of August was again capricious, and was in considerable defect in some important jute-growing districts. There was heavy rain early in September, and thereafter it was fine and hot. On the whole, the weather was unfavourable up to the close of May, but it was exceptionally favourable afterwards.

INDIGO

1891-92 In Bengal the season was altogether disastrous in consequence of an unusual deficiency of rain, and although the weather was more favourable at the manufacturing season, the yield was hardly increased.

In the United Provinces of Agra and Oudh the rains commenced very late and were heavy and continuous, causing a reduction in the area sown. The excessive drought in June and July seriously tried the crop, while the continued wet weather of August prevented the proper development of dye in the leaves.

In the Panjab the late arrival of the rains, and the ravages of locusts in some places, reduced the area and the yield.

In Madras the area and yield were seriously affected by an unfavourable season.

1892-93 In Bengal the season was unfavourable at sowing time owing to deficient rain in autumn and spring; conditions improved later with favourable rain, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused injury.

In the United Provinces of Agra and Oudh the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In the Panjab a protracted drought in the early summer retarded sowings, and the area sown was very much reduced.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December.

1893-94 In Bengal the rainfall was favourable at sowing time, and a large area was sown, but heavy and incessant rain and floods caused great injury.

In the United Provinces of Agra and Oudh a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a good yield.

In Madras larger sowings were made owing mainly to timely rains.

1894-95

In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In the United Provinces of Agra and Oudh, although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In the Panjab the area sown was increased, and the crop was good.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most places.

In the United Provinces of Agra and Oudh the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In the Panjab the crop was fair.

In Madras the season was favourable in Kistna and North Arcot where a large area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The yield generally was fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the United Provinces of Agra and Oudh germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair. Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield small.

1897-98

In Bengal the area sown was small, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the United Provinces of Agra and Oudh the season was not favourable; the growth of the plants was interfered with early in the season by excessive heat and insufficient rain, and the heavy rain of July and August flooded the low lands and greatly injured the indigo growing on them.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good.

In Madras the area sown was small, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food crops.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar.

In the United Provinces of Agra and Oudh the season was not favourable. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

1899-1900

In Bengal the season in the beginning was not unfavourable, but the excessive rain which fell in June, July, and August was most injurious, and the crop was also injured in many districts by the floods which followed the excessive rain.

INDIGO

SUGARCANE

In the United Provinces of Agra and Oudh the crop continued in good condition until the end of June, but excessive rain fell in July and seriously injured the plant everywhere, especially in the eastern districts. The rains then fell away and drought, particularly in Agra and Meerut, added to the injury done by heavy rain.

In the Panjab the crop suffered from the absence of rain and the stoppage of canal irrigation in Multan and Dera Ghazi Khan. In some unirrigated tracts it failed entirely.

In Madras also the season was generally unfavourable and the yield deficient.

1900-01

In Bengal sowings and the early growth of the crop were retarded by the scanty rain of April and May. Fairly good rain in June and July was followed by an interruption in August, but prospects were improved in Bihar by abundant rain in September, which, however, was accompanied by floods and consequent injury to the crop in Lower Bengal. In October sufficient rain fell, and the season generally was much better than that of 1899. The area, however, was restricted, owing to the substitution of other crops for indigo in north Bihar under the discouragement of the comparatively low level of prices during the preceding three seasons. The yield on the whole was good in the districts of north Bihar, but very poor in Lower Bengal where, however, the cultivation of indigo is now greatly restricted.

In the United Provinces of Agra and Oudh, unlike Bengal, the area sown increased, the increase being ascribed to the temporarily improved prices in the previous season. It may be that that improvement was an inducement to native growers of indigo, while it did not remove the discouragement to European planters. In the early months of the season prospects were good, but heavy rain in the Doab towards the end of the season reduced the yield.

In the Panjab the rains were late at sowing time, but the crop did well later when the rain came down abundantly.

In Madras the high prices of food-grains induced cultivators to restrict their sowings of indigo. The crop sown was very fair on the whole.

1901-02

In Bengal the season was on the whole unfavourable. During the early months of the year the rainfall was in slight defect but in May there was good and generally well distributed rain. The monsoon rains broke late and were deficient in June and July. There was little rain anywhere in October, and the showery weather at the end of November did not extend to north Bihar. Besides the unfavourable character of the season, the area was affected by the fall of prices resulting from the competition of synthetic indigo.

In the United Provinces of Agra and Oudh the reduction of area was proportionately much greater than in Bengal. The prospects of the crop, which had been affected by the late arrival of the monsoon, continued to be unsatisfactory until the end of August, but fine dry weather in September favoured manufacture.

In the Panjab a restricted area was sown owing to late inundation from canals in the south-western districts and the closing of factories consequent on the fall in prices. There was an insufficiency of rain and canal irrigation after the sowings, and some injury was done by locusts.

In Madras an extended area was sown in Nellore and Kistna owing to favourable weather for sowings, but almost everywhere else the cultivation of indigo continued to decline. The low prices realised, and the high prices of food-grains, are the principal reasons assigned for the decrease, but in the Carnatic, where the decrease was marked, the season was very unfavourable.

SUGARCANE

1899-1900

In Bengal the season was generally favourable to the crop at the beginning, but excessive rain in some parts, in August, September, and October, adversely affected prospects, while, in a few places, the crop was injured by the absence of seasonable rainfall and by insects.

In the United Provinces of Agra and Oudh the season was favourable until the autumn rains set in; but the excessive rainfall of June and July seriously injured it, and further injury was caused by the scanty rainfall of the succeeding months. Slight injury from insects was also reported from several districts.

In the Panjab the unfavourable weather conditions affected even the crop grown on irrigated lands, and cane grown on unirrigated land was practically a failure. The crop was stunted in growth and deficient in juice, while, owing to the great scarcity of fodder, the cane was used entirely or very largely in many districts as cattle-food.

In Madras the weather in many places was unfavourable, and some of the crop suffered from want of water, especially in the Circars.

1900-01

In Bengal the rainfall to the end of July was generally in defect; in August it was badly distributed and more or less deficient; in September it was copious and general; there was very little in October, and in November and December practically none. On the whole, the monsoon conditions were not very favourable to the crop, which also, in a few districts, suffered to some extent from insect pests.

In the United Provinces of Agra and Oudh the rains of February and March favoured sowings, and the crop germinated freely. Hot winds and afterwards insufficient rain in June and July retarded growth; but the crop was generally very healthy and promising. The rainfall was moderate in August but unusually heavy in September, and accompanied by high east winds. Floods also caused some local injury on low lands. On the whole the autumn rains greatly benefited the crop. November was rainless, but December and January were exceptionally wet; and cane-pressing was delayed in places by excessive rain.

In the Panjab the area under cane was slightly reduced, owing to dry weather at sowing time in April and May and to the fact that prices of food-grains were so high that it was more profitable to grow them than sugar on some lands. In Hoshiarpur, one of the chief cane-producing districts in the province, another reason assigned for the decline was the supersession of indigenous by imported sugar. In Sialkot it was said that a great number of cultivators emigrated with their cattle to other places owing to the dearness of food and scarcity of fodder in the previous year, and as most of the cane crop was used as fodder in the preceding year, the supply of seed was small and the price high. Although there was, on the whole, a decline in the area under cultivation, both irrigated and unirrigated, the season was far more favourable than the previous year.

In Madras early rains and an adequate supply in tanks led to increased sowings. The condition and yield of the crop were generally fair.

1901-02

In Bengal, on the whole, the season was not unfavourable, but rain was very scanty in February, March, and April, and the crop suffered from locusts and insects in a few districts. In December and January again there was a complete absence of rain. The area sown was below the normal owing to the unfavourable character of the early part of the season.

In the United Provinces of Agra and Oudh the rains of January and February 1901 were ample and germination was good, and the supply of water in the hot months was generally sufficient except in a few districts. Injury to the crop in several districts resulted from various causes—hot winds, insects, and the late arrival of the monsoon; but it was serious only in the Rohilkhand division and in parts of the Meerut division where the crop was attacked by grasshoppers. The autumn rain in July, though below the normal, was well distributed, and the rain in August was favourable and prospects improved materially, though the injury caused in the tracts mentioned could not altogether be made good. A break of about three weeks ensued early in September and the crop began to suffer, but at the end of the month heavy rain was received in the greater part of the province except the Meerut division which practically got no rain, while the falls in parts of the Agra and Rohilkhand divisions were insufficient. Some rain fell in places in October, but November and the greater part of December were rainless. The season was too dry to give a full yield of juice. In the two important cane-growing divisions of Meerut and Rohilkhand the crop was unpromising from the beginning owing to the injury caused by grasshoppers, and the drought of September and October further affected growth. In the other divisions the yield was somewhat better.

In the Panjab the area under sugarcane increased in irrigated tracts, but elsewhere there was a contraction due to scanty rain in March and April. The crop suffered from insects, locusts, and rats, and seriously from drought in September and October and the severe frost that followed. The result was so bad that in parts of Gujránwála the juice was not extracted and the cane was given as fodder to the cattle. The crop on the whole was below the average and, compared with the area, the estimated yield was disproportionately small. Another reason assigned for the decline was the supersession of indigenous by foreign sugar.

In the North-Western Frontier Province the crop was on the whole above the average. Though the failure of rain at the time of its maturing caused some decrease in the yield, the decline was more than compensated by the increased acreage.

In Madras, on the whole, a full normal area was planted. Rainfall was deficient in some places; but the yield was on the whole fair, though in the Circars the crop was far from good and in the Godavari delta disease caused material loss.

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TABLES OF AREA AND YIELD

SUMMARY TABLE OF PRODUCTION IN

		1891-92	1892-93	1893-94	1894-95	1895-96
Rice	acres	49,539,031	48,358,707	49,525,300	50,002,241	49,396,747
	cwt	314,804,161	420,282,625	459,119,400	497,901,780	415,355,100
Wheat	acres	27,033,172	27,653,624	28,720,032	28,536,734	24,178,567
	tons	6,442,760	7,535,846	7,194,514	6,735,201	5,333,361
Cotton	acres	11,730,000	13,232,850	15,471,183	15,197,240	14,751,930
	bales	1,497,000	1,923,804	2,180,499	1,957,251	2,364,319
Linseed	acres	7,255,000	7,833,700	8,862,100	7,951,118	6,882,037
	tons	487,000	583,900	624,800	325,697	369,869
Rape and mustard	acres	10,258,000	12,263,000	12,585,100	12,691,333	10,492,476
	tons	535,000	989,300	786,200	737,081	822,043
Sesamum	acres	2,037,000	2,106,800	2,198,040	3,000,969	3,171,472
	tons	138,000	199,138	176,599	253,937	249,866
Jute	acres	...	2,135,142	2,222,600	2,264,300	2,242,700
	bales	...	5,717,444	5,001,700	6,144,300	6,425,900
Indigo	acres	...	1,218,766	1,552,008	1,688,042	1,414,002
	cwt	...	179,056	179,437	237,494	190,924
Earthnut	acres	...	...	...	...	216,200
	tons	...	...	...	...	...
Sugarcane	acres	...	...	...	...	...
	tons	...	...	...	...	...

Note.—For detailed figures of the area and yield in each province and State see the following pages

EACH YEAR FROM 1891-92 TO 1901-02

1896-97	1897-98	1898-99	1899-1900	1900-01	1901-02		
48,021,462	52,205,466	52,682,050	51,969,635	48,932,493	49,620,326	acres	Rice
275,676,100	498,350,700	505,640,600	451,553,460	413,506,700	395,329,247	cwt	
20,659,380	24,626,195	25,453,167	18,768,279	24,284,053	23,3:0,581	acres	Wheat
5,355,879	7,194,943	6,808,501	5,357,430	7,157,597	6,009,016	tons	
14,965,650	14,243,772	14,621,066	11,873,512	14,584,523	14,232,135	acres	Cotton
1.929,191	2,197,933	2,424,613	842 975	2,308,936	1,969,238	bales	
4,918,892	6,142,387	6,469,387	5,014,406	5,926,991	6,299,326	acres	Linseed
220 983	445 970	427,894	295,684	326,024	342,624	tons	
9,995,201	12,202,859	11,658,432	10,862,824	12,588,666	11,382,886	acres	Rape and mustard
782,416	1,119,258	978,681	873,417	1,034,370	964,923	tons	
3,369,198	3,662,109	3,523,825	3,313,067	4,052,191	3,543,296	acres	Sesamum
217,653	310,817	304,918	186,729	332,362	229,952	tons	
2,196,600	2,151,600	1,624,400	1,961,800	2,093,400	2,249,000	acres	Jute
5,032,000	6,189,200	4,115,500	5,900,000	6,400,000	6,500,000	bales	
1,608,901	1,339,099	1,010,318	1,026,960	990,375	803,697	acres	Indigo
168,673	166,812	139,320	111,890	148,029	121,475	cwt	
273,526	203,903	217,814	173,946	294,408	423,443	acres	Earthnut
...	55,962	70,561	9,250	28,631	37,777	tons	
...	...	2,502,381	2,563,570	2,425,156	2,457,429	acres	Sugarcane
...	...	2,076,234	1,852,801	2,451,604	2,378,469	tons	

RICE

Province	acres	cwt	Province	acres	cwt
Bengal			*Burma*		
1891-92	39,552,008	284,804,161	1891-92	4,215,023	(a)
1892-93	37,324,907	333,956,225	1892-93	4,625,600	50,346,000
1893-94	37,886,500	374,227,800	1893-94	4,928,600	47,874,000
1894-95	38,639,500	416,857,200	1894-95	4,793,341	45,381,980
1895-96	37,447,600	317,514,600	1895-96	5,068,147	41,481,000
1896-97	36,177,400	179,637,400	1896-97	5,224,062	47,679,000
1897-98	39,549,500	398,142,000	1897-98	5,720,766	52,217,000
1898-99	39,605,400	405,842,900	1898-99	5,910,650	44,851,000
1899-1900	39,490,500	357,956,360	1899-1900	6,050,135	54,160,000
1900-01	36,013,900	311,508,600	1900-01	6,326,993	52,975,000
1901-02	36,366,500	286,303,400	1901-02	6,537,126	58,438,147
Madras			*Total*		
1891-92	5,771,000	30,000,200	1891-92	49,539,031	314,804,161
1892-93	6,408,200	35,980,400	1892-93	48,358,707	420,282,625
1893-94	6,710,200	37,017,600	1893-94	49,525,300	459,119,400
1894-95	6,569,400	35,662,600	1894-95	50,002,241	497,901,780
1895-96	6,881,000	56,359,500	1895-96	49,396,747	415,355,100
1896-97	6,620,000	48,359,700	1896-97	48,021,462	275,676,100
1897-98	6,935,200	47,991,700	1897-98	52,205,466	498,350,700
1898-99	7,166,000	54,946,700	1898-99	52,682,050	505,640,600
1899-1900	6,429,000	39,437,100	1899-1900	51,969,635	451,553,460
1900-01	6,591,600	49,023,100	1900-01	48,932,493	413,506,700
1901-02	6,716,700	50,587,700	1901-02	49,620,326	395,329,247

WHEAT

Province	acres	tons	Province	acres	tons
Panjab (including N.-W. Frontier Province)			*Bengal*		
1891-92	6,224,000	1,420,000	1891-92	1,300,000	250,000
1892-93	7,020,000	2,213,000	1892-93	1,559,000	466,000
1893-94	8,265,000	2,560,000	1893-94	1,461,000	459,000
1894-95	8,051,800	2,395,353	1894-95	1,413,000	686,300
1895-96	6,893,400	1,753,766	1895-96	1,427,400	345,600
1896-97	6,584,300	1,872,066	1896-97	1,341,700	386,900
1897-98	8,013,800	2,358,975	1897-98	1,569,500	592,600
1898-99	7,729,200	1,977,777	1898-99	1,582,500	656,400
1899-1900	6,366,500	1,823,182	1899-1900	1,550,300	572,700
1900-01	9,080,000	3,028,580	1900-01	1,498,700	472,600
1901-02	8,023,600	2,005,579	1901-02	1,388,200	391,000
United Provinces of Agra and Oudh			*Bombay (including Native States)*		
1891-92	6,502,097	2,035,229	1891-92	2,176,000	426,000
1892-93	6,307,227	2,354,255	1892-93	2,475,000	654,000
1893-94	6,674,889	1,854,695	1893-94	2,525,000	762,000
1894-95	6,333,688	1,469,996	1894-95	2,678,665	744,961
1895-96	5,177,261	1,591,294	1895-96	2,288,838	454,865
1896-97	4,931,710	1,850,914	1896-97	1,446,741	288,002
1897-98	5,985,146	2,249,633	1897-98	2,004,832	627,914
1898-99	6,348,688	2,277,414	1898-99	2,470,998	737,385
1899-1900	6,202,826	2,410,052	1899-1900	1,157,077	99,408
1900-01	6,790,440	2,384,605	1900-01	1,433,810	298,479
1901-02	6,479,720	2,401,940	1901-02	1,333,816	168,971
Central Provinces			*Berar*		
1891-92	3,904,000	760,000	1891-92	888,000	78,000
1892-93	4,197,000	762,000	1892-93	985,000	76,000
1893-94	3,936,000	575,000	1893-94	928,000	97,000
1894-95	3,393,348	502,275	1894-95	889,326	81,882
1895-96	2,714,454	368,038	1895-96	747,025	48,549
1896-97	1,969,623	332,645	1896-97	381,425	11,841
1897-98	2,171,714	543,095	1897-98	390,378	25,511
1898-99	2,505,299	456,169	1898-99	436,362	21,892
1899-1900	1,633,070	201,803	1899-1900	17,910	251
1900-01	2,055,736	440,900	1900-01	243,554	5,093
1901-02	2,590,209	561,574	1901-02	280,085	6,180

(a) Not stated

WHEAT—*continued*

Province	acres	tons	Province	acres	tons
Sind (including Native States)			***Hyderabad***		
1891-92	483,000	117,000	1891-92	1,942,824	96,238
1892-93	604,000	204,000	1892-93	1,260,272	97,062
1893-94	531,000	161,000	1893-94	1,166,000	109,000
1894-95	673,251	215,361	1894-95	1,527,445	74,034
1895-96	315,559	71,683	1895-96	1,561,698	92,885
1896-97	406,752	116,470	1896-97	852,643	23,010
1897-98	591,621	177,160	1897-98	1,091,595	33,170
1898-99	369,706	81,231	1898-99	1,196,520	35,604
1899-1900	364,522	68,226	1899-1900	419,633	1,979
1900-01	479,487	123,160	1900-01	748,163	15,068
1901-02	495,613	102,132	1901-02	712,157	13,184
Rajputana			***Mysore***		
1891-92	1,471,000	362,000	1891-92	2,125	154
1892-93	1,604,000	431,000	1892-93	2,640	189
1893-94	1,646,000	389,000	1893-94	(*b*)	(*b*)
1894-95	1,529,146	368,168	1894-95	4,534	304
1895-96	1,306,868	315,573	1895-96	5,456	363
1896-97	1,374,346	293,932	1896-97	3,871	413
1897-98	1,302,233	307,062	1897-98	4,363	331
1898-99	1,196,014	276,388	1898-99	4,029	492
1899-1900	360,733	79,289	1899-1900	2,758	254
1900-01	713,290	170,682	1900-01	2,556	197
1901-02	541,834	103,869	1901-02	3,714	256
Central India			***Total***		
1891-92	2,040,126	898,139	1891-92	27,033,172	6,442,760
1892-93 (*a*)	1,639,485	278,340	1892-93	27,653,624	7,535,846
1893-94 (*a*)	1,537,143	227,819	1893-94	28,720,032	7,194,514
1894-95	2,042,531	396,567	1894-95	28,536,734	6,735,201
1895-96	1,740,608	290,745	1895-96	24,178,567	5,333,361
1896-97	1,366,269	179,949	1896-97	20,659,380	5,355,879
1897-98	1,501,013	279,492	1897-98	24,626,195	7,194,943
1898-99	1,613,851	287,749	1898-99	25,453,167	6,808,501
1899-1900	692,950	160,276	1899-1900	18,768,279	5,357,420
1900-01	1,238,317	218,224	1900-01	24,234,053	7,157,597
1901-02	1,451,633	254,331	1901-02	23,300,581	6,009,016

COTTON

Province	acres	bales of 400 lb	Province	acres	bales of 400 lb
Bombay (including Native States)			***Madras***		
1891-92	5,136,000	683,000	1891-92	1,243,000	80,000
1892-93	5,286,400	946,400	1892-93	1,326,200	103,600
1893-94	5,910,900	927,100	1893-94	1,724,000	121,200
1894-95	5,292,717	782,497	1894-95	1,521,500	106,980
1895-96	5,303,598	915,575	1895-96	1,623,900	120,524
1896-97	5,033,549	723,587	1896-97	1,395,400	104,655
1897-98	4,751,103	834,004	1897-98	1,509,100	118,876
1898-99	5,098,145	1,101,039	1898-99	1,321,700	127,670
1899-1900	3,095,206	78,967	1899-1900	1,382,700	101,440
1900-01	4,240,140	672,278	1900-01	1,373,300	118,320
1901-02	3,819,729	443,596	1901-02	1,338,700	(*c*) 128,950
Berar			***Hyderabad***		
1891-92	2,244,000	302,000			
1892-93	2,186,600	186,800	1892-93	1,384,450	168,004
1893-94	2,184,800	162,500	1893-94	1,456,283	147,199
1894-95	2,102,956	116,289	1894-95	1,611,912	117,277
1895-96	2,071,856	235,268	1895-96	1,492,768	173,283
1896-97	2,306,870	137,823	1896-97	1,558,296	137,152
1897-98	2,150,329	185,965	1897-98	1,653,669	163,449
1898-99	2,476,306	177,542	1898-99	1,738,379	222,302
1899-1900	1,983,602	21,115	1899-1900	1,292,329	91,975
1900-01	2,521,651	245,178	1900-01	1,698,836	288,570
1901-02	2,689,201	245,302	1901-02	1,689,139	(*a*) 96,271

(*a*) Incomplete (*b*) No information (*c*) Estimated yield, including zamindári tracts, 181,200 bales

COTTON—*continued*

Province	acres	bales of 400 lb
United Provinces of Agra and Oudh		
1891-92	1,250,000	118,000
1892-93	1,045,100	118,000
1893-94	1,311,500	179,700
1894-95	1,492,084	141,506
1895-96	1,312,673	200,821
1896-97	1,423,924	182,127
1897-98	1,140,206	168,838
1898-99	1,151,654	189,668
1899-1900	1,212,794	160,410
1900-01	1,265,029	215,034
1901-02	1,452,918	266,430
Panjab		
1891-92	498,000	112,000
1892-93	549,900	118,200
1893-94	948,300	200,900
1894-95	1,124,500	231,997
1895-96	1,161,200	241,667
1896-97	1,176,700	204,806
1897-98	1,128,400	223,947
1898-99	788,600	166,707
1899-1900	988,400	138,926
1900-01	1,215,400	205,203
1901-02	1,030,200	219,646
Central Provinces		
1891-92	738,000	52,000
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	668,237	121,619
1899-1900	712,651	63,145
1900-01	1,004,132	184,087
1901-02	990,042	152,260
Rajputana		
1891-92	517,000	117,000
1892-93	500,400	133,300
1893-94 (*b*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	478,604	117,743
1899-1900	325,033	44,161
1900-01	369,384	104,390
1901-02	368,934	113,058

Province	acres	bales of 400 lb
Central India		
1893-94(*c*)	295,300	95,800
1894-95	512,936	114,060
1895-96	420,239	148,640
1896-97	522,683	137,840
1897-98	417,456	181,864
1898-99	471,408	140,311
1899-1900	479,565	69,210
1900-01	542 673	191,846
1901-02	480,853	224,841
Bengal		
1892-93	231,800	31,300
1893-94	216,000	30,400
1894-95	203,700	33,489
1895-96	197,900	28,009
1896-97	157,100	20,164
1897-98	174,000	29,890
1898-99	167,900	25,973
1899-1900	160,600	23.149
1900-01	127,700	26.069
1901-02	120,500	20,141
Sind (including Native States)		
1891-92	104,000	33,000
1892-93	69,800	32,400
1893-94	115,800	64,400
1894-95	113,589	47,264
1895-96	111,855	43,730
1896-97	123,706	48,595
1897-98	108,227	34,437
1898-99	92,312	34,039
1899 1900	92,069	17,577
1900-01	84,560	36,884
1901-02	93,624	45,258
Burma		
1898-99	167 821	—
1899-1900	148,563	32,900
1900-01	141,718	21,077
1901-02	108,295	13,125
Total		
1891-92	11,730,000	1,497,000
1892-93	13,232,850	1,923,904
1893-94	15,471,183	2,180,499
1894-95	15,197,240	1,957,251
1895-96	14,751,930	2,364,519
1896-97	14,965,650	1,929,191
1897-98	14,243,772	2,197,933
1898-99	14,621,066	2,424,613
1899-1900	11,873,512	842,975
1900-01	14,584,523	2,308,936
1901-02	14,232,135	1,969,238

LINSEED

Province	acres	tons
Bengal		
1892-93	805,700	121,900
1893-94	777,100	131,800
1894-95	732,900	120,900
1895-96	712,700	95,600
1896-97	587,800	84,900
1897-98	662,800	125,400
1898-99	677,900	144,700
1899-1900	653,200	126,700
1900-01	806,700	133,400
1901-02	777,200	109,600

Province		acres	tons
United Provinces of Agra and Oudh			
1891-92 (*d*)	pure	622,000	110,000
	mixed	4,044,000	97,000
1892-93	pure	481,000	74,000
	mixed	4,009,000	94,000
1893-94	pure	742,000	101,000
	mixed	4,008,000	65,000
1894-95	pure	753,857	69,165
	mixed	4,169,434	53,899
1895-96	pure	403,565	55,796
	mixed	3 927,944	82,462
1896-97	pure	235,166	40,036
	mixed	2,898,145	58,504
1897-98	pure	519,461	110,619
	mixed	3,434,500	90,976
1898-99	pure	428,728	87,854
	mixed	3.639,912	91,284
1899-1900	pure	357,880	73,267
	mixed	3,365,503	89,464
1900-01	pure	448,206	75,780
	mixed (*e*)	3,509,000	79,000
1901-02	pure	382,100	75,876
	mixed	3,807,392	100,113

(*a*) Exclusive of zamindári area in Raipur, Biláspur, and Sambalpur
(*b*) Exclusive of Tonk
(*c*) Exclusive of the greater part of the Bhopal Agency
(*d*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops
(*e*) Rough estimates, the usual data not having been available

LINSEED—*continued*

Province	acres	tons
Central Provinces		
1891-92	1,388,000	112,000
1892-93	1,384,000	134,000
1893-94	1,788,000	132,000
1894-95	1,498,672	42,532
1895-96	730,750	45,253
1896-97	527,421	19,391
1897-98	683,728	69,783
1898-99	838,255	58,955
1899-1900	306,933	4,319
1900-01	495,165	20,652
1901-02	605,538	33,916
Hyderabad		
1896-97	324,455	11,355
1897-98	438,030	15,141
1898-99	426,045	13,443
1899-1900	171,970	1,506
1900-01	371,983	8,774
1901-02	370,376	9,899
Berar		
1891-92	364,000	35,000
1892-93	354,000	21,000
1893-94	578,000	29,000
1894-95	385,563	13,893
1895-96	500,650	27,497
1896-97	188,142	4,576
1897-98	180,472	10,405
1898-99	171,085	7,683
1899 1900	21,564	—
1900-01	154,716	5,382
1901 02	185,738	9,606
Bombay (including Native States)		
1891-92	270,000	19,006
1892-93	233,000	25,000
1893-94	402,000	52,000
1894-95	410,692	25,508
1895-96	606,428	63,261
1896-97	157,763	2,221
1897-98	223,396	23,646
1898-99	277,462	23,975
1899-1900	137,356	428
1900-01	141,221	3,036
1901-02	170,982	3,614
Rest of India		
1891-92	567,000	114,000
1892-93	567,000	114,000
1893-94	567,000	114,000
Total		
1891-92	7,255,000	487,000
1892-93	7,833,700	583,900
1893-94	8,862,100	624,800
1894-95	7,951,118	325,697
1895-96	6,882,037	369,869
1896-97	4,918,892	220,983
1897-98	6,142,387	445,970
1898-99	6,469,387	427,894
1899-1900	5,014,406	295,684
1900-01	5,926,991	326,024
1901-02	6,299,326	342,624

RAPE AND MUSTARD

Province	acres	tons
Bengal		
1892-93	2,256,000	372,300
1893-94	2,209,100	334,200
1894-95	2,221,600	343,700
1895-96	2,148,400	332,400
1896-97	2,003,900	312,300
1897-98	2,239,700	438,600
1898-99	2,167,200	448,200
1899-1900	2,032,900	371,900
1900-01	2,043,200	337,800
1901-02	1,956,500	379,500
Panjab (including N.-W. Frontier Province)		
1891-92	594,000	68,000
1892-93	850,000	135,000
1893-94	900,000	112,000
1894-95	802,600	97,224
1895-96	475,100	50,602
1896-97	515,300	52,756
1897-98	1,112,300	142,115
1898-99	582,600	56,041
1899-1900	397,500	26,761
1900-01	1,699,700	260,167
1901-02	739,500	73,084

Province		acres	tons
United Provinces of Agra and Oudh			
1891-92 (*a*)	pure	132,000	32,000
	mixed	9,083,000	360,000
1892-93	pure	126,000	27,000
	mixed	8,588,000	367,000
1893-94	pure	131,000	21,000
	mixed	8,909,000	240,000
1894-95	pure	109,347	16,497
	mixed	9,109,152	216,050
1895-96	pure	95,678	26,554
	mixed	7,487,563	359,979
1896-97	pure	83,372	18,524
	mixed	7,084,519	310,602
1897-98	pure	88,822	28,417
	mixed	8,379,863	436,451
1898-99	pure	92,679	22,884
	mixed	8,548,444	410,983
1899-1900	pure	76,180	21,186
	mixed	8,169,056	425471
1900-01	pure	94,130	24,060
	mixed (*b*)	8,450,000	372,000
1901-02	pure	125,585	36,841
	mixed	8,267,844	430,617
Hyderabad			
1896-97		1,994	73
1897-98		3,828	140
1898-99		8,796	286
1899-1900		905	6
1900-01		16,597	286
1901-02		12,077	209

(*a*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops
(*b*) Rough estimates, the usual data not having been available

RAPE AND MUSTARD—*continued*

Province	acres	tons
Sind (including Native States)		
1891-92	169,000	22,000
1892-93	140,000	20,000
1893-94	111,000	17,000
1894-95	222,413	24,852
1895-96	53,664	8,503
1896-97	72,093	11,101
1897-98	154,248	27,277
1898-99	70,766	8,601
1899-1900	64,637	6,193
1900-01	119,596	12,304
1901-02	106,360	11,030
Assam		
1891-92	168,000	36,000
1892-93	170,000	45,000
1893-94	168,000	34,000
1894-95	134,399	20,249
1895-96	182,640	36,388
1896-97	178,408	38,853
1897-98	167,268	31,878
1898-99	134,856	21,891
1899-1900	119,110	21,789
1900-01	126,309	21,140
1901-02	157,671	31,924

Province	acres	tons
Bombay (including Native States)		
1891-92	44,000	7,000
1892-93	65,000	13,000
1893-94	89,000	18,000
1894-95	91,822	18,509
1895-96	49,431	7,617
1896-97	55,615	8,207
1897-98	56,830	14,380
1898-99	53,091	9,795
1899-1900	2,536	111
1900-01	39,134	6,613
1901-02	17,349	1,718
Rest of India		
1891-92	68,000	10,000
1892-93	68,000	10,000
1893-94	68,000	10,000
Total		
1891-92	10,258,000	535,000
1892-93	12,263,000	9-9,300
1893-94	12,585,100	786,200
1894-95	12,691,333	737,081
1895-96	10,492,476	822,043
1896-97	9,995,201	782,416
1897-98	12,202,859	1,119,258
1898-99	11,658,432	978,681
1899-1900	10,862,824	873,417
1900-01	12,588,666	1,034,370
1901-02	11,382,886	964,923

SESAMUM

Province	acres	tons
Madras		
1891-92	501,000	(*a*) 4,900
1892-93	318,600	(*a*) 5,522
1893-94	296,300	(*a*) 5,290
1894-95	613,600	16,739
1895-96	824,700	22,507
1896-97	562,800	14,830
1897-98	826,000	24,100
1898-99	690,700	25,900
1899-1900	665,900	19,300
1900-01	850,000	28,200
1901-02	743,500	27,500
Bombay (including Native States)		
1891-92	590,000	79,000
1892-93	703,500	105,500
1893-94	668,600	78,900
1894-95	754,072	100,438
1895-96	843,039	98,104
1896-97	770,553	65,600
1897-98	681,905	103,136
1898-99	754,327	115,566
1899-1900	303,148	6,186
1900-01	719,642	105,167
1901-02	628,827	50,844
Central Provinces		
1891-92	456,000	17,000
1892-93	503,000	33,000
1893-94	534,700	31,300
1894-95	520,099	27,714
1895-96	569,407	45,243
1896-97	627,948	43,953
1897-98	749,491	67,770
1898-99	634,268	43,475
1899-1900	1,026,257	62,132
1900-01	983,260	82,138
1901-02	742,702	41,533

Province	acres	tons
Bengal		
1894-95	356,200	43,365
1895-96	368,900	35,930
1896-97	332,500	30,765
1897-98	367,500	49,800
1898-99	360,400	51,100
1899-1900	385,200	48,973
1900-01	395,700	45,406
1901-02	385,200	51,160
Panjab		
1891-92	122,000	15,000
1892-93	204,500	25,900
1893-94	234,800	25,900
1894-95	319,200	31,917
1895-96	189,400	18,772
1896-97	223,400	21 379
1897-98	195,400	22,984
1898-99	252,600	25,350
1899-1900	216,400	16,253
1900-01	218,500	19,077
1901-02	211,500	16,964
United Provinces of Agra and Oudh		
1891-92	142,000	8,000
1892-93	152,600	14,700
1893-94	200,600	19,700
1894-95	177,043	15,513
1895-96	148,833	14,554
1896-97	177,785	12,222
1897-98	147,817	14,994
1898-99	155,178	15,159
1899-1900	203,604	22,743
1900-01	238,154	28,431
1901-02	241,242	23,226

(*a*) Incomplete

SESAMUM—*continued*

Province	acres	tons	Province	acres	tons
Sind (including Native States)			*Hyderabad*		
1891-92	103,000	(*a*) 7,800	1896-97	387,041	13,065
1892-93	109,500	10,516	1897-98	404,020	13,200
1893-94	177,740	12,309	1898-99	426,740	14,463
1894-95	191,040	15,892	1899-1900	237,512	2,383
1895-96	151,038	12,052	1900-01	392,032	10,421
1896-97	183,873	12,384	1901-02	377,023	10,011
1897-98	154,812	8,260			
1898-99	114,129	8,285	*Total*		
1899-1900	158,957	7,323	1891-92	2,037,000	138,000
1900-01	105,881	4,468	1892-93	2,106,800	199,138
1901-02	95,053	5,756	1893-94	2,198,040	176,599
Berar			1894-95	3,000,969	253,937
1891-92	123,000	6,300	1895-96	3,171,472	249,866
1892-93	115,100	4,000	1896-97	3,369,198	217,653
1893-94	85,300	3,200	1897-98	3,662,109	310,817
1894-95	69,715	2,359	1898-99	3,523,825	304,918
1895-96	76,155	2,704	1899-1900	3,313,067	186,729
1896-97	103,298	3,515	1900-01	4,052,191	332,862
1897-98	135,164	6,573	1901-02	3,543,296	229,952
1898-99	135,483	5,620			
1899-1900	116,089	1,436			
1900-01	149,022	9,554			
1901-02	118,249	2,958			

JUTE (*in Bengal*)

	acres	bales of 400 lb		acres	bales of 400 lb
1891	(*b*) 1,403,445	(*b*) 2,971,794	1896	2,196,600	5,032,000
1892	2,135,142	5,717,444	1897	2,151,600	6,189,200
1893	2,222,600	5,001,700	1898	1,624,400	4,115,500
1894	2,264,300	6,144,300	1899	1,961,800	5,000,000
1895	2,242,700	6,425,900	1900	2,093,400	6,400,000
			1901	2,249,000	6,500,000

INDIGO

Province	acres	cwt	Province	acres	cwt
Bengal			*Madras*—continued		
1892-93	645,950	92,006	1896-97	454,700	50,740
1893-94	648,928	67,285	1897-98	323,900	61,460
1894-95	629,100	104,485	1898-99	210,600	30,320
1895-96	552,700	73,133	1899-1900	249,000	33,340
1896-97	582,200	56,671	1900-01	251,900	46,100
1897-98	529,500	50,415	1901-02	253,000	40,660
1898-99	512,100	74,321	*Panjab*		
1899-1900	449,200	44,996	1891-92	52,200	9,256
1900-01	360,600	47,707	1892-93	65,300	10,085
1901-02	318,200	47,066	1893-94	110,700	15,946
United Provinces of Agra and Oudh			1894-95	124,200	24,005
			1895-96	104,300	20,325
1891-92	201,269	20,583	1896-97	135,400	20,549
1892-93	206,516	26,545	1897-98	108,800	17,392
1893-94	349,980	38,106	1898-99	47,200	8,263
1894-95	420,242	41,524	1899-1900	97,300	15,577
1895-96	342,102	33,786	1900-01	115,700	22,693
1896-97	436,601	40,713	1901-02	71,600	14,848
1897-98	376,899	37,545	*Total*		
1898-99	240,418	26,416	1891-92	419,599	148,329
1899-1900	231,400	17,977	1892-93	1,218,766	179,056
1900-01	262,175	31,529	1893-94	1,552,008	179,437
1901-02	160,897	18,901	1894-95	1,688,042	237,494
Madras			1895-96	1,414,002	190,924
1891-92	166,130	18,540	1896-97	1,608,901	168,673
1892-93	301,000	50,420	1897-98	1,339,099	166,812
1893-94	442,400	58,100	1898-99	1,010,318	139,320
1894-95	514,500	67,480	1899-1900	1,026,900	111,890
1895-96	414,900	63,680	1900-01	990,375	148,029
			1901-02	803,697	121,475

(*a*) Incomplete | (*b*) Approximate

EARTHNUT

Province	acres	tons
Madras		
1895-96	216,200	(a)
1896-97	124,800	
1897-98	83,600	
1898-99	116,200	
1899-1900	102,000	
1900-01	229,997	
1901-02	362,135	
Bombay (including Native States)		
1896-97	148,726	(a)
1897-98	120,303	(b) 55,962
1898-99	101,614	70,561
1899-1900	71,946	9,250
1900-01	64,411	28,631
1901-02	61,308	37,777

	acres	tons
Total		
1895-96	(c) 216,200	(a)
1896-97	273,526	(a)
1897-98	203,903	(d) 55,962
1898-99	217,814	(d) 70,561
1899-1900	173,946	(d) 9,250
1900-01	294,408	(d) 28,631
1901-02	423,443	(d) 37,777

SUGARCANE

Province	acres	tons
Bengal		
1898-99	861,100	871,435
1899-1900	884,400	817,185
1900-01	801,800	811,420
1901-02	811,700	857,155
United Provinces of Agra and Oudh		
1898-99	1,227,881	1,204,799
1899-1900	1,259,070	838,885
1900-01	1,212,456	1,193,214
1901-02	1,216,429	976,222
Punjab (includin Frontier Pr		
1898-99	367,900	(a)
1899-1900	365,700	196,731
1900-01	355,500	446,970
1901-02	375,400	435,692

Province	acres	tons
Madras		
1898-99	45,500	(a)
1899-1900	54,400	(a)
1900-01	55,400	(a)
1901-02	53,900	109,400
Total		
1898-99	2,502,381	(d)2,076,234
1899-1900	2,563,570	(d)1,852,801
1900-01	2,425,156	(d) 2,451,604
1901-02	2,457,429	2,378,469

(a) No information (b) Excluding Native States (c) Madras only (d) Incomplete

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Fifth Issue]

AREA AND YIELD

OF

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

SUGARCANE

FOR VARIOUS PERIODS FROM

1891-92 TO 1902-03

CALCUTTA
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA
1903

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BOMBAY BRANCH

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Royal Asiatic Society.

INTRODUCTORY NOTE

THE Government of India issue periodically during the year estimates of the yield of certain crops compiled, from local statements, in the Statistical Department.

It has been the practice to issue a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two. The summaries in the present publication are a condensation of the final estimates, presenting in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables, abstracted from those appended to the final estimates, in which are stated the area sown and the estimated yield of the crops. The estimates are not made for the whole of India and are necessarily, in the most favourable circumstances, only approximations to the truth. The necessary data for statistics of crop outturns are (1) the area sown and (2) the average yield per acre. The former may be either measured or estimated, but the latter must always be conjectural, and as it is necessary both to adopt a normal yield for large areas often differing much in soil and cultivation, and to determine the percentage of the normal yield representative of the yield of each year, there must necessarily be an element of uncertainty in the result. Recent enquiries into the statistics of the cotton crop for past years show that in some of the provinces where agricultural records are very complete and the areas sown have accordingly been determined with great exactness, the estimates of the outturn, when compared with the known exports and consumption, are the most defective. This is caused partly by the adoption of too low a standard but chiefly by the character of the seasons, both in good and bad years, being unduly depreciated. The figures have therefore been revised, as far as possible, for the enquiry is not yet complete, and to enable comparisons to be made the estimates of previous years have also been corrected.

The estimates of area are also defective but in a different way. Thus, forecasts of some of the crops are received only from provinces and States where those crops are extensively grown. The rice statistics, for instance, relate only to Bengal, Burma, and Madras, and those for sugarcane to Bengal, Madras, the United Provinces, the Panjab, and the North-West Frontier. The completest estmaites are received of cotton and wheat, twelve provinces and States, and political agencies furnishing reports on the former and eleven on the latter; but these estimates also are not for the whole of those territories, for, with some exceptions, those tracts have been excluded which have not been accurately surveyed or are held under privileged tenure, and hence do not possess the regular establishments maintained elsewhere for reporting the area placed under each crop. The most serious omission from this cause is in the figures for Madras, which is a large producer of rice, cotton, sesamum, and indigo, but has hitherto made forecasts only for the Government villages or about two-thirds of the area of the British districts. The Feudatory States within provincial boundaries are also omitted from the forecasts of all the provinces except Bombay and Sind. But for these omissions and a certain element of uncertainty in regard to crops which are sown as mixtures of two or more crops in the same field, the estimates

of area relating to the Panjab, Berar, the United Provinces, the Central Provinces, and Madras may be regarded as fairly exact. The statistics for the British districts of Bombay also stand in the front rank, but in this publication they are combined with the more conjectural figures of the provincial Feudatory States as a large proportion of the cotton, oilseeds, and wheat is grown in those States. The statistics of area for Bengal which relate to nearly the whole of the cultivated portion of the province, omitting unimportant Feudatory States, are more conjectural as they rest on estimates, based on varied sources of information, which have been verified by cadastral surveys for only one-sixth of the area.

The statistics for the State of Hyderabad and the numerous States in Central India and Rajputana Agencies rest on similar data to those of British India, and like them mostly refer to tracts where a reporting agency exists, though perhaps not equal in efficiency to that of the neighbouring British provinces. Estimates are also included for some of the lands held on privileged tenures.

J. A. ROBERTSON
Offg. Director-General of Statistics

December 10, 1903

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AREA AND YIELD

OF

CERTAIN CROPS

SUMMARY OF THE CONDITIONS OF THE SEASON FROM 1891-92 TO 1902-03

RICE

1891-92

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. Deficient rain during the early part of the season also affected the autumn crop.

In Madras too the season was adverse, the rain failing over large areas.

In Burma conditions were satisfactory.

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.

In Burma conditions were good everywhere.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.

In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable.

1894-95

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.

In Madres the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.

In Burma the crop suffered somewhat from insufficient rain.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.

In Madras the crop generally was fair, though in some places, in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.

In Burma the season was favourable and the crop excellent.

RICE

1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

1898-99

In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900

In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01

In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

1901-02

In Bengal the season was not entirely favourable for the autumn rice. From April to August the rainfall was unevenly distributed, and in July it was deficient almost everywhere. General and copious rain fell in September, but in October the rains ceased abruptly. For the winter rice the season was more unfavourable. The abrupt termination of the monsoon in September, for there was very little general rain in October, did great injury to the crop, and in all the Bihar districts, where the rainfall in June was also very deficient, it was a failure. The weather was seasonable during transplantation which led to an increase in the area sown.

In Madras the season was not so favourable for early planting as in 1900, but owing to good supplies of water from the irrigation works and generally good rain in August and September an area about equal to the average yielded a crop rather more than the average of recent years.

In Burma conditions were favourable. Rain fell at the end of the first week in February, but the crop, which was greatly in excess of the average, was but very slightly injured.

1902-03

In Bengal the season was not quite favourable for the autumn rice. The rainfall in March and April exceeded the normal almost throughout the province, and in May also there was fair rain everywhere, except in a few districts of Bihar and Chota Nagpur. The monsoon broke late in June, and the fall was seriously in defect in the Patna and Chota Nagpur Divisions; while, on the other hand, in north and east Bengal, it was excessive, thus aggravating the injury caused by the abnormally heavy ante-monsoon showers. July was a seasonable month, but in August the fall was again deficient, except in north and east Bengal, while floods at the end of the month caused much damage in Muzaffarpur and Darbhanga. In the following month, however, there was copious and general rain in Bihar and Chota Nagpur, and in north Bengal the fall was greatly above the normal, while elsewhere it was slightly in defect. October was abnormally dry almost everywhere and November was literally rainless. For the winter rice the season, though capricious, was not unfavourable. The weather was seasonable during transplantation. And had it not been for the deficiency of the October rains, the crop would have been much above the average.

In Madras, there was an increase in the area sown chiefly in Cuddapah, Chingleput, and North Arcot, owing to the favourable character of the season. The condition of the crop was generally good.

In Burma floods caused damage in Tharawady and Thongwa, and a decrease in cultivation in Henzada. In Myaungmya the fallow area was large owing to cattle disease and sickness among the cultivators, and in Prome owing to untimely rainfall; otherwise prospects were bright.

WHEAT

1891-92

In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts in February, injured the crop.

In the United Provinces of Agra and Oudh heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth, and the crop was injured by early west winds in some parts of Bihar and north and east Bengal.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnátak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture.

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the United Provinces of Agra and Oudh the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and was favourable to germination. The winter rains benefited the crop, especially on unirrigated land.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the United Provinces of Agra and Oudh the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

In Bombay the monsoon rainfall was excessive for *kharif* sowings and the area left unsown was utilised for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

WHEAT

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the United Provinces of Agra and Oudh the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable, and rust was common.

In the Nizam's Territory heavy rain late in the season reduced the yield.

1895-96

In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the United Provinces of Agra and Oudh the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficent crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

1896-97

In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March, and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the United Provinces of Agra and Oudh the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In the Nizam's Territory the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second-half of May damaged the grain on the threshing-floors.

In the United Provinces of Agra and Oudh the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

WHEAT

In Bengal the season was favourable; the autumn rain was copious and well distributed and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In the Nizam's Territory the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the United Provinces of Agra and Oudh the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable: the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second-half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient innundation and scanty rainfall.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In the Nizam's Territory the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the third week of January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the United Provinces of Agra and Oudh the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attempted on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was an almost absolute failure.

In the Nizam's Territory the conditions and results were similar to those in Berar.

WHEAT

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands, and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail, floods, excessive rain, and water-logging, as also, when the damage was caused on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the United Provinces of Agra and Oudh, the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield.

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarát rust, insects, and cloudy weather did harm. In the Deccan and Karnátak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

In the Nizam's Territory sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.

In Rajputana and Central India both area and yield were much below the average.

1901-02

In the Panjab the monsoon rainfall was less plentiful than usual and ceased early; the winter rains failed entirely. There were no late sowings, and the whole crop went practically without rain until the latter half of March when slight showers saved the withering crop from total destruction in some places. High winds and severe frost in February also proved detrimental to the standing crop, and the yield was decidedly below the average, even on irrigated lands. On unirrigated lands the failure was far more extensive. On lands irrigated by wells a considerable part of the crop was in some places used as fodder for cattle employed to work the wells. Some injury was done in places by hailstorms and by rust.

In the North-West Frontier Province the season throughout was one of unusual drought. From October to the end of February no rain fell and sowings on unirrigated lands were much reduced; the crop, where sown, in most cases withered away in March. A normal area was sown on irrigated lands which account for one-third of the crop of the season.

In the United Provinces of Agra and Oudh the monsoon of 1901 was abnormally delayed, and general rain did not set in until the 10th of July. The fall in July and August was well distributed and sufficient; but in the next two months it was deficient in the Meerut division and in parts of Agra and Rohilkhand where sowings in most places were effected with the aid of irrigation. November and the first three weeks of December were entirely rainless, and irrigation was resorted to wherever possible. The season was unusually dry and the unirrigated crop suffered generally from drought.

In Bengal the rainfall in Bihar was deficient in September and seriously in defect in October, and there was practically no rain until March, when it was too late to benefit the crop. There was a contraction in the area sown owing to drought at the sowing season in Bihar where the yield was much below the normal.

In the Central Provinces the season was abnormally dry, the October rain, on which the germination of wheat largely depends, being represented by only a few local showers, and there was no rain thereafter except in the first half of January in some places. Frost, rats, and insects also injured the crop.

In Bombay there was a contraction in the area sown owing to the deficiency of late rain. In Gujarat and north Deccan, the September rain was very deficient and sowings made little progress until after the October rains. No rain fell in November and December, and the crop suffered considerably not only from want of surface moisture, but also from the scanty supply in the wells. The surviving crop was further almost destroyed by a very severe plague of rats. In the south Deccan and the Karnátak, the September rain was generally sufficient, but that in October was below the average and checked full sowings. Later rains were light and partial and the crop withered in many places, particularly in the eastern tracts where no

rain fell and no irrigation was possible. Damage by insects and disease was also reported from a few places. The Sind crop was fairly good.

In Berar the monsoon rainfall was in excess of the normal, and although there were no winter rains, the moisture in the soil at sowing time was sufficient to promote the growth of the young plants and to bring the wheat satisfactorily into ear. At this stage, however, rats appeared in large numbers and did considerable injury, destroying in some localities almost the whole crop of the field in a single night.

In the Nizam's Territory conditions were at first somewhat favourable, but rats did considerable injury in places and over a large area; the late rains were also not favourable.

In Rajputana both area and yield were much below the average. In Central India the area and yield were larger than the quinquennial average, but a little short of the decennial average.

1902-03

In the Panjab the monsoon rains of 1902 continued late into September; and light but fairly general showers continued up to the third week in October. These conditions were favourable for early sowings on irrigated lands, and a considerable area was sown, but in the Mooltan division canal water and rainfall were insufficient and consequently sowings contracted considerably. The feature of the year was the practical absence of rain until the fourth week of January. This rendered late sowings on dry lands impossible, and caused much injury to crops on such lands. In the submontane and central districts good rain fell in the fourth week of January, which considerably improved prospects. Only a few showers, however, fell in Hissar and Rohtak. February was practically rainless, and a very anxious period ensued until the advent of copious, frequent, and general rain in March. The districts of Delhi, Karnal, Hissar, Rohtak, and Gurgaon, however, fared very badly, none of them receiving as much as ½ of an inch. Good showers continued well into April, which would have caused much damage to the crops, but in 1902-03 it was beneficial as the crop was very backward. On the whole the conditions were favourable at the beginning and end of the season, but the prolonged drought in the middle of the season caused considerable injury to the crops on dry lands. The decrease as against the preceding year was in the irrigated area. The unirrigated crop showed an increase in area due to favourable conditions at sowing time. In the districts of Hissar, Rohtak, and Gurgaon, a large proportion of the unirrigated crop failed to mature, and the outturn was poor. Elsewhere, on irrigated lands, the crops were normal, and on unirrigated lands, just a little below normal.

In the North-West Frontier Province, owing to the favourable and timely rain in August, September, and October, large sowings were made on unirrigated lands. But the crop was in a precarious state owing to the total failure of rain for three months, from the end of October to the end of January. A timely fall in the last week of January, however, saved the situation for the time being. But February was again absolutely rainless and the prospects of the crop became very dismal. Rain fortunately again set in early in March and up to harvest time was almost overabundant. On the whole the season was a favourable one. The yield was much above average. The crop came to maturity in a good healthy condition, but the quality of the grain was damaged to some extent when it was lying on the threshing-floor by the heavy rains of April and May.

In the United Provinces of Agra and Outh the autumn rains of 1902 set in rather late in the first week of July and continued till the close of the month. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the province. The rainfall of September was almost uniformly excellent. Light rain was also received in October in most districts. Little interference was thus caused with the preparation of fields for *rabi* sowings; moisture in the soil was sufficient; and the seed germinated freely. After this the season was unusually dry and irrigation was resorted to on a large scale. The months of November and December were entirely rainless and were followed by severe frost. The rain which fell in the last week of January was pretty general and greatly benefited the unirrigated crop. February and March were also practically rainless and the crop was gathered without any mishap. The season was unusually dry, and irrigation was resorted to from all available sources. The crop, however, continued very promising, except in the western divisions, where whiteants, frost and dry west winds caused some damage. In the Benares and Gorakhpur divisions and in Oudh the crop was very good—a full normal crop. Elsewhere it was less satisfactory. But the total estimated yield was the highest on record.

In Bengal the rainfall in September was general and plentiful, but it was seriously deficient in October, there being practically no rain in south Bihar and Chota Nagpur. The fall in the subsequent months was markedly deficient in Bihar, and in a lesser degree elsewhere. On the whole the season was unfavourable to the wheat crop.

In the Central Provinces the monsoon rainfall was favourable for the preparation of land, but there was a marked difference in the conditions at sowing time between the north and the south of the province. In the south the monsoon ceased extraordinarily early in September, and consequently the area sown was contracted, whilst the early growth of the plants was stunted. Prospects were gloomy, but were much improved by some good cold weather showers. In the north the season was throughout favourable owing to the late monsoon rainfall and an exceptionally heavy fall at the end of October. Consequently the area sown showed a substantial increase. The cold weather showers were also exceptionally good, being heavy enough to benefit the growing plants and yet not so heavy as to cause any material damage from rust. Since then conditions continued to be favourable, but frost did

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some damage in the northern and plateau districts, whilst the drought continued in most of the southern districts. In the northern districts the crop was the best reaped during the past 10 years, and, but for some damage by frost and insects, would have been a heavy bumper crop.

In Bombay the season was very good in Gujarat; in the Deccan and Karnátak the crop was somewhat damaged by heavy rain in December, and in Sind it suffered from a poor inundation. For the province generally the season was above the average. The monsoon was late, beginning in the second week of July. Some of the early crops were lost and had to be resown. August rain was sufficient and Septembar rain was very good. The October rain was below the average, but in November heavy wide-spread rain, which did some damage to the ripe *kharif* crops, was of great benefit to the young *rabi* crops. An unusually heavy fall in December injured in places the wheat and other *rabi* crops.

In Berar the area was contracted owing to the repeated failure of the late rains during the past few years which made cultivators fear to reserve much land for winter sowings. The rainfall during the year was up to the average, and the most marked feature of the season was the exceptionally good showers in November and December which greatly benefited the growth of the plants, and raised the yield considerably above that of the previous year, and more than equalled the average of the last five years.

In the Nizam's Territory the area was contracted, but the outturn was satisfactory.

In Rajputana there was a substantial increase in both area and yield. In Central India the area did not reach the figures of last year which showed a large increase over those of the year previous and the quinquennial average, but the yield was as good or better.

In Mysore both area and yield were substantially larger than t hose of the preceding year and the quinquennial and decennial averages.

COTTON

1891-92

In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July when rain was excessive. These conditions, and locusts, caused injury to both the early sowings and the late crop.

In the United Provinces of Agra and Oudh the weather conditions were the same as in the Panjab, with a worse result.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low land.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnátak. In Sind the overflow of the Indus was also late and irregular.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it.

1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the United Provinces of Agra and Oudh.

In the Central Provinces excessive and injurious rain fell in September and October.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

1893-94

In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the United Provinces of Agra and Oudh continued heavy rain from July to October, and strong winds, retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency proper and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious but on the whole very beneficial.

In the United Provinces, on the other hand, the area was slightly below the average and heavy rain and stormy winds in October and November reduced the yield.

In Bengal, owing to excessive rain, the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

In the Central Provinces and in Berar the rains were heavy and injured the standing crop.

In Bombay the rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with the early and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains.

1895-96

In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that on irrigated land the crop was good, but poor on land dependent entirely on rain.

In the United Provinces of Agra and Oudh the rains were generally favourable to the crop, weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season proved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of seasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton. The area sown with the late crop was also below the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year. In Sind there was a deficiency of water.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which was inadequate and the crop was bad.

In the United Provinces of Agra and Oudh there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop, especially on unirrigated lands.

In Bengal the season was unfavourable, and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In the Nizam's Territory a restricted area was sown, and the crop was poor.

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

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In the United Provinces of Agra and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season though a little late was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing "northern" and "western" varieties, but the lateness of the monsoon contracted the area in places where Tinnevelly and Salem cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In the Nizam's Territory the area sown was large, but owing to an unfavourable season, the yield was bad.

1898-99

In the Panjab the rainfall at sowing time was scanty, in August it was irregular and deficient, but favourable showers in September did much to develope and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted.

In the United Provinces of Agra and Oudh the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop.

In Bengal the season was unfavourable owing to the uneven character of the monsoon.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn.

In Berar dry weather in October and the failure of the late rains had a bad effect, but the yield was good.

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In the Nizam's Territory the monsoon was late at the commencement of the season, and though prospects were improved by rain in August and September, the yield was bad.

In Rajputana the season was on the whole unfavourable owing to insufficient rain; in Central India the crop did well.

1899-1900

In the Panjab the prospects of the crop were generally hopeful in the beginning of the season, and sufficient rain at sowing time and a good supply of canal water induced cultivators to sow an extensive area, a large proportion being on land irrigated by canals and wells. But with the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the United Provinces of Agra and Oudh excessive rain in June and July interfered with sowings and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was almost entirely lost.

In Bengal, in the early part of the season the rainfall was irregularly distributed, and later it was on the whole inadequate, and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places and where it survived gave a very poor yield. In Sind the water-supply was deficient and the yield poor.

In Madras the season was, on the whole, unfavourable and the yield very poor.

In the Nizam's Territory the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the United Provinces of Agra and Oudh the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received throughout the provinces, and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

In Bengal the rain in July was, on the whole, well distributed and fairly continuous. In August it was irregularly distributed and more or less in defect everywhere. Much more copious and general rain fell in September, but in October it was deficient in most places. The season was, on the whole, unfavourable to early cotton, though fairly favourable to the late cotton except at sowing time.

In the Central Provinces, in consequence of the relative cheapness of cotton seed, favourable conditions at sowing time, and good prices, a very extensive area was sown. The distribution of the rainfall left something to be desired. In some parts the plants were swamped by the heavy and continuous rain of August and September, especially in the richer soils and in low-lying positions. Heavy rain in September also injured the flowers and the absence of rain in October affected the crop in poor soils and high-lying fields, and owing to insufficient moisture the bolls withered before maturity.

In Berar the area under cotton was the largest known. The monsoon rainfall was better than for many years past. The early rains were somewhat deferred and sowings were later than usual, but the fall in June and July was normal; August was very wet and in September also the fall was excessive; but the rains closed abruptly at the end of that month. The cotton crop on poor soils suffered from lack of moisture, but on all rich black soils and in low-lying lands there was a heavy crop.

In Bombay early cotton in the Deccan and late cotton elsewhere, mainly in Gujarat, covered a restricted area, early rains being deficient and not allowing full sowings. The devotion of part of the usual cotton area to food-grains consequent on the scarcity of the preceding year also accounts for some of the decrease. The crop promised well at first, but afterwards it suffered from the deficiency of the late rains.

In Madras the north-east monsoon failed in some places and the area sown was also restricted by the preference given to the cultivation of food-grains. The crop was generally fair except in the Deccan districts, where *Northerns* and *Westerns* were affected by disease and want of rain.

In the Nizam's Territory with good rain at the sowing season for early cotton a large area was brought under cultivation, but late cotton did not receive sufficient rain; and in the Aurangabad division, which has the largest cotton area in the territory, the sudden cessation of the winter rains kept the crop back.

In Central India both area and yield were much in excess of the average.

In Burma heavy rains greatly injured the crop.

1901-02

In the Panjab the rainfall of May was beneficial to the crop, and the injurious effect of the long break in the rains in September and October was chiefly felt on unirrigated land. Some damage was also done by locusts, grasshoppers, and rats.

In the United Provinces of Agra and Oudh a very large area—the largest since 1894—was placed under cotton, although the rains were late, owing to the stimulus given by the high prices and the plentiful crop of the preceding year.

In Bengal the season was on the whole unfavourable by reason of deficient rain for the cotton crop, both early and late.

In the Central Provinces the germination of the crop, which was not sown under favourable conditions, was unequal, and a long break of the rains in the first half of July necessitated resowings to some extent in most of the important cotton-growing districts. Excessive rain in August did some injury which was not altogether made good by a timely break in the second half of September. Owing to the absence of rain after September, and the ravages of insects in October, the prospects of the crop materially deteriorated.

In Berar the monsoon rainfall was unusually heavy and continuous. It was not until the beginning of September that a break of any duration occurred and the crop then was suffering from excessive moisture; but three weeks of fine weather followed by timely showers brightened prospects considerably; and the clear cold weather of November and December brought the crop rapidly to maturity. Rats, however, caused much injury.

In Bombay there was some increase in the area sown with early and late cotton in the British districts of Gujarat and the Deccan, and in Baroda and other Gujarat States, owing to favourable early rains, but not enough to compensate for the large decline in Káthiáwár and Cutch and in the Karnátak districts, which resulted from the deficiency of rain at the sowing

COTTON

season. In Sind there was a small increase due to a better water-supply. In Gujarat the season began well, but the crop made little progress owing to the failure of the late rains. Afterwards locusts and rats materially injured the surviving crops.

In Madras the condition and prospects of the crop were, on the whole, fair, and unusully late rain in the Deccan districts considerably improved prospects there. On the other hand, late and subsequently very heavy rain retarded sowings in the south; both the area and the yield were, on the whole, below the average.

In the Nizam's Territory the rains were, on the whole, favourable.

In Central India and Rajputana the crop was good.

In Burma the season was not favourable owing to want of rain.

1902-03

In the Panjab, owing to deficient rainfall in February and March, unirrigated cotton sowings contracted. The deficiency of rainfall, however, stimulated cultivation with the aid of irrigation. There was therefore a considerable extension of irrigated cotton sowings. The rainfall of June was favourable for late sowings on unirrigated lands. The break in the rains towards the close of July and August marred the prospects a good deal and the flowers did not form well. September rains improved the crop very much, but the flowers that formed then were late and the cold of the last few weeks checked further development. The outturn on the whole was only average, and in some districts even below average.

In the North-West Frontier Province timely rainfall from March to June stimulated sowings and proved exceedingly beneficial to the young plants, and the seasonable rains of July, August, and September enabled further sowings to be made. The crop was fairly average.

In the United Provinces of Agra and Oudh the rains set in during the first week of July and continued with little break to its close. The falls were general and well distributed, and above the normal. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the provinces. The rainfall of September was heavy. Light rain was received in the first-half of October, but the fall was not sufficient. In the third week rain was heavier but unevenly distributed. In the last week only trifling showers were received. Owing to a succession of seasons of light rainfall which generally tends to the success of this crop, the cultivation of cotton extended. Prospects, however, deteriorated afterwards. In places the flowers fell off without bearing bolls, while in others the full development of the bolls was checked. Damage was also reported in places from high winds and insects. The irrigated early crop escaped serious injury, but the unirrigated late crop suffered severely. The fibre was reported to be of average quality.

In Bengal the rainfall in June was greatly in defect in the early cotton growing districts except the Chittagong Hill Tracts, but in July the fall was practically normal all over the province. In the following month the fall was again deficient, while in September there was heavy rain in all the districts, except the Chittagong Hill Tracts and Orissa. There was little or no rain in October, when the crop was in flower or pod, and November was literally a rainless month. Thus the season was anything but favourable to the early crop. For the late crop also the season was not favourable owing to deficient rain.

In the Central Provinces, sowings, though late, were successful over an exceptionally large area. Germination was good, the weather was favourable for weeding, and the plants thrived. Conditions then pointed to a bumper crop. Since then the season was not so favourable. In the northern districts heavy rain at the end of October and beginning of November did considerable damage just when the plants were in flower. The lighter rain at this time in the southern districts did not cause so much damage, but the plants suffered in their later stages of growth from the almost continuous drought accompanied by cloudy weather, which caused the withering of immature bolls. Damage was also caused by insects. The season did not thus fulfilled its early promise of being an exceptionally favourable one, but it was still about the average.

In Berar the area sown was the largest recorded. The exceptionally good crops of the preceding two seasons and the favourable market prices doubtless influenced the cultivators, and a further reason for the large area was the decrease of *rabi* crop cultivation owing to the failure of late rains in past years. The monsoon rains commenced unusually late and there was an extensive break in August which caused some anxiety; subsequently the rainfall was light but timely, and prospects were brilliant. Unfortunately heavy rain fell in November when the first pickings were being gathered, causing considerable damage to the ripe cotton, and in some districts knocking ripening bolls off the plants; this largely discounted the favourable estimates previously made. But, although the late rains damaged the crop that had reached maturity, a heavier yield than usual was gathered from the later pickings.

In Bombay the area contracted mainly in the British districts of Gujarat and the Deccan, where the opening rains came much later than usual. In the Gujarat States, however, there was a considerable extension in area which made up part of the deficit elsewhere. Though the crop suffered in places from excessive rain and cold at the time of the opening of the bolls, the season was distinctly favourable, and the total estimated outturn was much above that of the preceding year and the average.

In Madras an extended area was sown owing to good and timely rainfall; and the condition of the crop was reported to be generally good.

COTTON

In the Nizam's Territory the area sown was the highest on record. The outturn was, however, unfavourably affected in the Mahratwara districts, where most of the cotton is grown, by cloudy weather and untimely rain that fell when the cotton capsules were growing, and in Bidar the capsules fell off in parts.

In Rajputana and Central India the area exceeded the average and the crop was excellent.

In Burma also the crop was very good.

OILSEEDS

Linseed, rape, and mustard

1891-92

In the Panjab the season was fairly good for oilseeds, and the area was the largest on record up to that year, but the yield disappointed expectation.

In the United Provinces of Agra and Oudh the season was mild and favourable to linseed, and the rapeseed was free from fungoid disease: both crops, however, suffered to some extent from the lateness of the winter rains.

In Bengal the dryness of the season affected the crops, and reduced the areas considerably in most districts.

In the Central Provinces and Berar the season was on the whole favourable. In the former linseed suffered from the failure of the winter rains; while in the latter rain at sowing time was favourable, but the late rain was scanty.

In Bombay, though a large area was sown with linseed in the north Deccan, the crop was everywhere poor owing to deficient rain, and in the Karnátak it was a complete failure from drought. The rapeseed crop in Gujarat and Sind was also injured by the dryness of the season, and the yield was very deficient.

1892-93

In the Panjab where the oilseeds mature late, the winter rains were followed by a large increase in the area sown.

In the United Provinces of Agra and Oudh the expectations of a good crop were not realised owing to frost and wet weather in January and February.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was good.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. But on the whole both linseed and rapeseed did well.

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop.

In Assam the season was favourable.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair.

In the United Provinces of Agra and Oudh the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crop suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts.

In the Central Provinces the crop promised well in the earlier months, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much good.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being good. In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust.

In the Nizam's Territory excessive rain caused a contraction in places of the area sown, while in others timely rainfall promoted sowings.

In Assam the season was favourable for mustard.

OILSEEDS

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts.

In the United Provinces of Agra and Oudh the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was poor.

In the Nizam's Territory the winter rains injured the crop.

The area under mustard in Assam was small and the yield inferior owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite bad in the Panjab, Sind, the United Provinces of Agra and Oudh, and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95 when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northeen India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other land, was more or less contracted everywhere except in the Nizam's Territory, and the contraction was very material in the Panjab, the United Provinces of Agra and Oudh, Bombay and Sind. The harvest, however, was good on the reduced area in the United Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a good crop.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts, but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In Northern India the winter rains were timely and sufficient and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

The area sown with linseed was greatly contracted in the United Provinces of Agra and Oudh, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at sowing time. The yield was also bad especially in the Central Provinces and Berar, while in Bombay the crop almost entirely failed. In Bengal and the United Provinces of Agra and Oudh the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the United Provinces. The harvest was generally fair. The short rainfall in Assam was unfavourable for sowing mustard and the yield was affected by the absence of rain during the period of growth.

1897-98

Conditions in the Panjab, the United Provinces, and Bengal were favourable at sowing and although the area sown was restricted, except in the Panjab where the acreage under rapeseed was increased, the yield was good.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapeseed crop, however, did better in Bombay and Sind.

The mustard crop in Bengal and Assam was reduced in consequence of retarded sowings and deficient winter rains.

1898-99

In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage.

In the United Provinces of Agra and Oudh excessive moisture at sowing time and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; and injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda), in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains.

1899-1900

In the Panjab the early cessation of the monsoon, the dry autumn months, and the lateness and deficiency of the winter rains, had the natural result of diminished sowings and restricted yield of rapeseed. In some places no yield at all was obtained, the crop having been cut when green and eaten as a vegetable by the people or given as fodder to the cattle.

In the United Provinces of Agra and Oudh excessive rain in June and July was followed by a material deficiency in August and September, and the three following months were exceptionally dry; fortunately rain fell about the middle of January and did much good to both linseed and rapeseed.

In Bengal the season was not favourable to the cultivation of oilseeds. The rainfall in the autumn months was in defect, and the want of rain was felt in many districts at the time of sowing, while an excess in others interfered with the proper germination of the seeds. The usefulness of the rain which fell in January was qualified by the injury done in some places by hail.

In Assam the late subsidence of the floods, combined with the late cessation of the rains, interfered with timely sowings, but the yield was good owing to favourable weather after the crop was sown.

In the Central Provinces, the want of moisture in the soil at sowing time, and the absence of the winter rains, told upon linseed seriously. Germination was exceedingly defective, and the plants which came up yielded but little seed.

In Bombay linseed was a complete failure in Gujarat, no sowings being possible in consequence of the failure of the rains. In the Deccan and other parts of the Presidency, the conditions were hardly better. The rapeseed crop was also practically a complete failure, some return having been obtained only in Cutch.

In Berar also linseed was a disastrous failure. Even the best black soil failed to retain enough moisture to nourish the crop, and the plants withered before reaching maturity.

In the Nizam's Territory, which is subject to climatic conditions resembling those of Berar and Bombay, linseed, rapeseed, and mustard all did very badly.

1900-01

In the Panjab the season was most favourable for rapeseed. The monsoon rains were abundant and the winter rains fell at opportune intervals, both for sowing and maturing. The area under the seed was more than double the average, and the yield very large.

In the United Provinces of Agra and Oudh the rainfall of the monsoon was abnormally heavy towards the end of the season, and the winter rains were also excessive and prolonged. The moisture in the soil was ample at the sowing season, and consequently the area sown was extended. But though the moisture permitted of the sowing of seed in a fairly large way, the excessive and prolonged continuance of the rain and cloudy whether generated fungoid diseases, and the crop was seriously affected by them in many districts, the yield in the localities affected being hardly more than half the normal crop.

In Bengal the monsoon rains were fitful and irregular, falling in abnormal quantity towards the end of the season, while the winter rain in January and February was also much in excess of the normal. On the whole the season was unfavourable to the oilseed crops, which suffered from an excess of rain in many districts and from comparative drought in others.

In Assam the mustard crop suffered in most districts from the absence of rain during the period of growth.

In the Central Provinces the continuous rain during August and September interfered with the preparation of land, whilst the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and except in Nagpur, prospects were favourable until the continued cloud and rain in January and February induced rust which caused great injury. The unfavourable conditions after January told seriously upon linseed.

In Bombay linseed is mostly grown in the Deccan and Karnátak, and in both tracts the crop suffered so greatly from the absence of moisture owing to scanty rain as to be an almost complete failure. Rapeseed did better in Gujarat, but this crop is of much more importance in Sind where the area sown was in excess of the average and a fair yield was expected.

OILSEEDS

In Berar the area sown with linseed was far below the average. After the year of famine during which both food-stocks and credit were exhausted, the general inclination of the cultivators was to obtain as early a crop as possible, and larger areas were devoted to the autumn crops, notably jawar and cotton. The monsoon rainfall was in excess of the average, but the ground had been so thoroughly parched by the failure of the rains of 1899 that the moisture was rapidly absorbed and was inadequate for the successful growth of linseed. No rain fell after sowings had been completed, the rain of January came too late to be of any material benefit, and the yield was poor.

In the Nizam's Territory an extensive area, not materially smaller than the average, was placed under linseed, but the conditions of the season were unfavourable, as in Berar.

1901-02

In the Panjab the rainfall of the monsoon of 1901 ceased early and was not as abundant as usual. The winter rains failed entirely, and high winds and severe frosts in February proved detrimental to the crop, which was only saved from destruction in some places by slight showers in the second-half of March. The absence of rain throughout the season was more unfavourable for oilseeds than for wheat as the former are harvested earlier, and they did not therefore derive any benefit from the rains in the latter part of March. Owing to the absence of rain in the sowing season, a very small area was sown with oilseeds, while sources of artificial irrigation were devoted chiefly to superior crops. Rape was in some fields sown with wheat, and the contraction of wheat sowings affected this crop also. The crop on unirrigated lands gave extremely poor results generally and failed entirely in several localities. On irrigated lands also the crop was below the average.

In the North-West Frontier Province, as in the Panjab, the season was most unfavourable for rapeseed. There was a decline in the area sown owing to the failure of the winter rains and to the short supply of irrigation from canals and hill torrents.

In the United Provinces of Agra and Oudh the autumn rains in the latter half of the season were insufficient in the Meerut division, and in parts of the Agra and Rohilkhand divisions; in the rest of the provinces conditions at seed-time were less unfavourable. The winter rains were scanty, only light rain having fallen towards the close of December and the beginning of January. Linseed is generally sown after an autumn crop, and, as the soil was too dry for sowing without previous irrigation, the area sown with this seed declined largely; but the area and yield of rapeseed were larger than the average.

In Bengal the monsoon was weak, the deficiency being serious in the Bihar and Chota Nagpur divisions. On the whole, the season was unfavourable for oilseeds, especially in Bihar; and there was a decline in the area sown owing to drought in the sowing season.

In Assam the season was favourable for the mustard crop except for heavy rain at the end of November. The area sown was larger than usual, and the yield was almost equal to the average.

In the Central Provinces the absence of moisture in the soil at the sowing season and the failure of the winter rains told seriously upon the linseed crop. Germination was defective and the plants which came up yielded but little seed.

In Bombay the absence of moisture severely injured the linseed crop, and its ruin was completed by rats, which destroyed nine-tenths of the crop in Khandesh. As regards rapeseed, the conditions in Sind where the crop is mostly grown were fairly good, but in Gujarat the crop was almost a complete failure by reason of drought and the destructive activity of rats.

In Berar there was no winter rain, but the season was favourable for sowing and in most localities the seed germinated freely and prospects were good; but considerable injury was done by rats, and these prospects were not realised.

In the Nizam's Territory the area was slightly smaller than the preceding year, but a little larger than the average. The yield was smaller than the average owing to the unfavourable character of the latter part of the monsoon.

1902-03

In the Panjab the late continuance of the monsoon was favourable for sowings, and an extensive area was sown; but the failure of the winter rains caused wide-spread injury, and though good rain fell from March 10th onwards, this was too late to benefit rapeseed to any considerable extent. Insects also did great harm in places. As a whole, the crop was estimated at from one-half to five-eighths of the normal on the area sown.

In the North-West Frontier Province the season was on the whole favourable for the rapeseed crop. But considerable injury was done to the crop in Hazara and Kohat by heavy rains at harvest time which blackened the stalk and damaged the seed.

In the United Provinces of Agra and Oudh the autumn rains were seasonable and there was sufficient moisture in the ground when the linseed and rapeseed crops were sown. November and December were entirely rainless and were followed by severe frost. The first winter rains fell in the last week of January and generally benefited the crops. After that there was practically no rain. A much larger area than in the preceding year was placed under both crops. As in the case of wheat the dry season was very favourable to the oilseed crops. In some districts in the west slight damage was reported from the frosts of January and later on from hot west winds.

In Bengal the monsoon rains were generally plentiful, but terminated abruptly in September. In that month there was good rain, in Bihar and Chota Nagpur; in north Bengal the fall was greatly in excess of the normal while elsewhere it was, on the whole, slightly in defect. October was unusually dry, and the following two months were marked by an almost total absence of rain. The drought continued through January in Bihar and east Bengal, while elsewhere there were seasonable showers. General but scanty rain in February slightly benefited these crops. There was, however, very little rain during the next two months, except in a few districts of east Bengal, and on the whole the season was not favourable.

In Assam, the partial loss of the rice crop caused by floods induced people to sow mustard more largely than usual. Hence there was a considerable increase in the area placed under the crop. But for want of rain during the season of growth and other unfavourable causes, the character of the crop was much below the average in many districts. The increased area sown, however, made up for the poor outturn of the crop.

In the Central Provinces the Nagpur and Chattisgarh countries are the principal linseed-growing tracts, and it is in these tracts that the conditions were most unfavourable. The early cessation of the monsoon rainfall contracted sowings; germination was defective for want of moisture, and the crop which came up suffered from the continued drought. In the northern districts, where conditions were not unfavourable at sowing time, some damage was caused by frost and insects.

In Bombay there was a decline in the area sown with linseed in the Deccan and Karnátak, which was attributed to extended cultivation under *kharif* crops as a result of the unfavourable *rabi* seasons of past years, and the crop was affected by rust and disease in places owing to excessive rain, and also from want of sufficient moisture. In Gujarat the crop was fairly good. As regards rapeseed, the crop in Gujarat suffered slightly from frost in Baroda; elsewhere it was fair. In Sind there was a decrease in area owing to low inundation; but the condition of the crop was fair.

In Berar the decrease in the area sown was attributed to the repeated failure of the late rains during past years, which induced cultivators to allot more land under monsoon (*kharif*) crops. There were good showers in November and December which improved the outturn.

In the Nizam's Territory the area under linseed was slightly smaller than last year, but a little larger than the average of the preceding five years; that under rape and mustard, a little larger than last year, and about the double of the average of the preceding five years. The yield showed a better result, being about the double of the quinquennial average in both cases.

Sesamum (*til or jinjili*)

1891-92

In the Panjab the season was decidedly unfavourable, the late arrival of the monsoon causing a reduction in the area sown. The crop was damaged by locusts, and the yield was very poor.

In the United Provinces of Agra and Oudh, the monsoon rain was quite abnormal, light in the beginning, but excessive at the latter end of the season. The area and yield were both small.

In the Central Provinces the season was unfavourable and sowings were greatly restricted. The crop was very poor.

In Bombay the rain at sowing time was favourable, but the growing crop suffered from drought as well as from excess of moisture in places. In Sind a low inundation and locusts affected both area and yield.

In Berar excessive rain and insects injured the crop, though its condition was favourable in some districts owing to sufficient and seasonable rain.

In Madras the area and yield were reduced by the unfavourable character of the season.

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July, stimulating sowing. The yield was very good.

In the United Provinces of Agra and Oudh sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop.

In Bombay there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was better than in the preceding year. In Sind the harvest was bad.

OILSEEDS

In Berar unfavourable rain and the rotation of crops caused a decrease in the area own. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In Madras, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the sown area; but the yield was small.

In the United and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the United than in the Central Provinces.

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was not good. In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

In Berar the early sowings were impeded by deficient, and the later sowings by excessive, rainfall; and excess of rain in September injured prospects.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop good.

In the Nizam's Territory the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield.

In the United and Central Provinces the season began well, but injury was afterwards done by excessive rains, especially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the United Provinces the loss occasioned by the rains was considerable.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was deficient owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower. In Sind with favourable rain and extensive inundation the yield was fairly good.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower, and the yield was generally poor.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The early cessation of the north-east monsoon rainfall restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was very poor.

1895-96

In the Panjab the rainfall was unfavourable, and the crop on the whole was poor.

In the United Provinces of Agra and Oudh the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, but the season became adverse later by reason of deficient rain and the abnormal heat which prevailed to the end of November.

In Bombay a large area was sown, the rainfall being seasonable, but the crops, both early and late, suffered from want of moisture. In Sind scanty rain and a low inundation curtailed the area, and the young crop suffered from want of moisture.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was bad.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average on account of the excessive sowing of the early crop. Rain was too heavy in some places while it was deficient in others, and the yield from both crops was bad.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor.

In the United Provinces of Agra and Oudh the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands.

In the Central Provinces the area sown was large, but the crop generally fared bad except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In Bombay, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended from timely rain. The former crop suffered severely from drought, and the result was a poor yield. The latter did not suffer so much.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food crops accounted for a contraction of the area sown in most provinces.

The yield varied greatly from about an average crop in Bombay, the United Provinces, and the Panjab, to greatly below the average in Madras, Sind, and the Nizam's Territory.

In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the United Provinces of Agra and Oudh the area sown was restricted, and excessive rain towards the latter part of the season deteriorated prospects.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere, which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was large.

In Berar sowings were made under favourable seasonal conditions, and, though the crop was injured by the failure of the late rains, the yield was large.

In Madras the season was favourable for the late crop, and it grew in good conditions on an extended area. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded a poor crop.

1899-1900

In the Panjab the season opened very well, but became more unfavourable as the months passed, and the yield was small.

In the United Provinces of Agra and Oudh the excessive rainfall in the beginning of the season gave rise to apprehensions regarding the prospects of the crop, and later the crop was damaged by continued drought in the Meerut, Agra, and Rohilkhand divisions, where, however, *til* is not extensively sown. In the tracts in which the cultivation of *til* is important, the moderate rainfall of August and September proved very beneficial and the yield there was good.

In Bengal on the whole the season was good enough, though the rains were irregular, excessive in some places and insufficient in others; and the yield was larger than the average.

In the Central Provinces the season favoured sowing operations, but it did not continue favourable, and the abnormal heat of November did much injury. The early crop was fairly successful, but the cold weather *til* in many places began to wither when on the point of maturity.

In Bombay the early rains were scanty and the later rains failed entirely. Owing to the extremely unfavourable nature of the season the crop withered away in many places and where it survived gave the poorest yield.

In Berar the crops withered under the drought and the excessive heat which followed.

In Madras the area sown was restricted, the south-west monsoon being unfavourable in most places, and the yield was not good.

In the Nizam's Territory the rains failed, and the crop withered under the drought which followed some good rain in September.

1900-01

In the Panjab the area sown was much below the average, heavy floods in some districts restricting sowings.

In the United Provinces of Agra and Oudh the monsoon began late and was generally scanty and unevenly distributed until the third week of August. Then and in September,

OILSEEDS

excellent rain fell, and its distribution was all that could be desired, especially in Bundelkhand, where ordinarily four-fifths of the area under sesamum is grown. Except for heavy falls in Benares and Gorakhpur in the second week of October, the weather during that month and November was clear and seasonable.

In Bengal the monsoon rainfall was capricious and irregular, and, on the whole, the season was not favourable for oilseeds, which suffered from an excess of rain in many tracts, while in others they suffered from drought.

In the Central Provinces the conditions at the time of sowing, both of the early and late varieties, were generally favourable and a large area was sown. Sesamum is a cheap crop to sow, and it resists drought better than most crops. The difficulty of obtaining the relatively expensive seed of wheat and other spring crops stimulated its cultivation. The early crop suffered somewhat from the heavy rain at the close of August and during September. The germination of the late sown crop, which is more extensively grown in the south of the provinces, also was irregular, heavy rain just after sowing having washed away part of the seed. Drought during October and November, abnormal heat, and insects, following on cloudy weather, also injured the crop. In consequence the yield was smaller than the normal.

In Bombay the conditions were good in Káthiáwár at the time of sowing, and double the average area was sown, the increase there and in Gujarat more than making up for the contraction in other parts of the Presidency caused by the preference of cultivators for the cultivation of food-grains.

In Berar the rains at sowing time and the monsoon rains were favourable; there was no prolonged break, and the crop developed well under congenial climatic conditions.

In Madras the conditions were not good; and though a large area was sown the crop was deficient.

In the Nizam's Territory a few seasonable showers in January, which were badly needed, improved prospects.

1901-02

In the Panjab (including the North-West Frontier Province) the rainfall at sowing time was unevenly distributed, being excessive in some districts and insufficient in others. The yield was below the average owing chiefly to the early cessation of the monsoon rains.

In the United Provinces of Agra and Oudh rain commenced late, about the 10th of July; the weather in August was favourable and the rainfall above the normal in most districts; a break of about three weeks ensued early in September; but at the end of the month heavy rain was received in the greater part of the province. The second and the last weeks of October were rainless, but in the first and third weeks some rain fell in parts of the dry western districts. The month of November was practically rainless. Sowings were late, the drought in September retarded growth, and deficient rain in October caused further injury.

In Bengal there was no rain in December and January, and all the *rabi* crops suffered severely in consequence. A very restricted area was sown owing to drought at sowing time.

In the Central Provinces the rainfall was very unfavourable. The early sown variety suffered, especially in the north, from excessive rain, the crop being washed out in places while weeding was retarded or altogether prevented. The conditions were still more unfavourable for the late sown crop, which is put down at the end of August or during the first week of September. Continuous rain at this time interfered with sowings and much of the seed sown was washed out by heavy showers. Germination was very defective and many fields were ploughed up and devoted to other crops. The contraction of area sown was greatest in the Nagpur country, where the crop entirely failed over large tracts. A prolonged break subsequently occurred during which the young plants that germinated languished from want of proper moisture, and some injury was also caused by insects.

In Bombay the increase in the area sown in parts of Gujarat and Karnátak, due to favourable rains for sowing, was not sufficient to counterbalance the large decrease elsewhere, resulting mainly from the scantiness of sowing rains in the Presidency proper and to a low inundation in Sind. In Gujarat the season was very unfavourable owing to the failure of the late rains, while rats and locusts did some injury in places, and in consequence the crop was estimated to give only half the average yield. In the north of the Deccan, too, the crop suffered to some extent from the same causes, while in Sind it was affected by a deficient water-supply.

In Berar the monsoon rains were heavier than usual and the crop suffered from excessive moisture; during July and August the rainfall was almost continuous, and weeding operations were rendered impossible. Rats and locusts also attacked and injured the crop.

In Madras in the Circars, the Deccan districts, and the west coast the sowings were about up to the average, but owing to the unfavourable season they were very deficient elsewhere, especially in the Carnatic.

In the Nizam's Territory the area was above but the yield below the average, the late rains having been unfavourable.

1902-03

In the Panjab there was an increase in the area sown owing to seasonable rainfall and the low floods in the riverain tracts which facilitated cultivation in lands usually inundated. The districts of Ferozepore, Montgomery, and Jhang however showed a marked falling off as compared with the past year, owing to deficient moisture at the time of sowing. The outturn was good in Gujarat, Lahore, and Ambala. Elsewhere it was only average or below average

owing to a break in the rains of July and August. The crop was also attacked by insects in Montgomery, Mooltan, and Gurdaspur.

In the North-West Frontier Province the crop was above the average both as regards area and outturn.

In the United Provinces of Agra and Oudh the rains set in rather late in the first week of July and continued till the close of the month. In the first and the last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the provinces. The rainfall of September was almost uniformly excellent. Light rain was also received in October in most districts, but it was not sufficient. The month of November was entirely rainless. The season of light rainfall was in general favourable to the sesamum crop.

In Bengal the monsoon rains ceased early and the drought continued through January in Bihar and east Bengal, while outside that area there were seasonable showers in all the chief oilseeds-growing districts except Murshidabad. There was general and beneficial rain almost all over the province in February and March, but, on the whole, the season was not favourable.

In the Central Provinces the monsoon though late was favourable both for the sowing and the growth of the early variety. In almost all districts a full yield was anticipated. The late variety was sown under fairly favourable conditions and germination was good. But afterwards conditions were less favourable and there was some deterioration, so that the general outturn for the province was estimated at about an average crop.

In Bombay the monsoon broke much later than usual and did not permit full sowings of the early crop. For the late crop, however, the season was favourable and extensive sowings made up the deficit under the early crop. Though the crop suffered at first a little by a prolonged break in the middle of the season, and later on the reaped and ripe crop was somewhat damaged by excessive *swati* rain, the season on the whole was favourable. The area and outturn were both deficient in Sind.

In Berar the rains began late and sowings were undertaken later than usual, but subsequently the season was favourable. Although the rainfall in the province generally was below the average, the showers were timely, and the crop was in a thriving condition. Unfortunately when harvest operations commenced at the end of October the weather again turned wet and considerable damage was done to the crop.

In Madras owing to seasonable rainfall an extended area was sown, and the condition of the crop was generally fair.

In the Nizam's Territory the crop was unfavourably affected in places, but nevertheless the total yield was the largest recorded in the Territory.

JUTE

1891 The rainfall when sowings were being made was excessive, and the area placed under the crop was smaller than in the preceding year. Germination and growth were also affected by excessive rainfall. Later, again, the want of rain was felt in several districts.

1892 Excessive rainfall injured the plant in some districts, but on the whole the season was good, and a larger area was sown under the stimulus of high prices.

1893 The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season.

1894 Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first half of August the fall was favourable in every district.

1895 The rainfall was in excess of the normal quantity in April and the first-half of May, heavy in the second-half of May in east Bengal, and less than the average in other parts. In the next two months it was deficient, and in the first-half of August it continued deficient in central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger.

1896 Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with

JUTE

growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts.

1897 On the whole the season was favourable, and there was enough water for steeping.

1898 The area sown was smaller than in 1897, owing partly to the unfavourable character of the season at sowing time and partly to the low prices of jute in 1897 and to high prices of food-grains.

1899 The weather, though seasonable in the beginning, became extremely unfavourable towards the end of the season.

1900 There was some deficiency of rain in March and April, which prejudicially affected sowings in a few places. In May and the first fortnight of June, the rainfall was also light, but good rain later greatly improved the prospects of the crop. In July there was heavy rain in most districts, but a partial drought followed in August which, combined with a want of flood-water from the rivers, hampered steeping operations in north and east Bengal, and in a few cases diminished the yield. Fair rains fell in the first-half of September, but almost too late to have much effect on the yield.

1901 The rainfall in the earlier months of the year was almost uniformly unfavourable. In June there was heavy rain in almost all the important jute-growing districts; in July the rainfall was very irregular but not seriously deficient; the rainfall of August was again capricious, and was in considerable defect in some important jute-growing districts. There was heavy rain early in September, and thereafter it was fine and hot. On the whole, the weather was unfavourable up to the close of May, but it was exceptionally favourable afterwards.

1902 In Bengal the season was abnormal. A prolonged drought ended in the middle of March. In April and May the rainfall was excessive, and almost doubled the normal in the Dacca division and more than did so in Tippera. In south-eastern Bengal the weather was, therefore, very unfavourable for sowings, and to a less extent this was the case also in north-eastern Bengal. The heavy rain in May also retarded weeding. Since then the weather conditions were normal, but the prospects of the crop were not encouraging.

In Assam the weather was unfavourable at the beginning of the season, and the adverse influences persisted to the end. The crop was injured by excessive rain and flood.

INDIGO

1891-92 In Bengal the season was altogether disastrous in consequence of an unusual deficiency of rain, and although the weather was more favourable at the manufacturing season, the yield was hardly increased.

In the United Provinces of Agra and Oudh the rains commenced very late and were heavy and continuous, causing a reduction in the area sown. The excessive drought in June and July seriously tried the crop, while the continued wet weather of August prevented the proper development of dye in the leaves.

In the Panjab the late arrival of the rains, and the ravages of locusts in some places, reduced the area and the yield.

In Madras the area and yield were seriously affected by an unfavourable season.

1892-93 In Bengal the season was unfavourable at sowing time owing to deficient rain in autumn and spring; conditions improved later with favourable rain, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused injury.

In the United Provinces of Agra and Oudh the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In the Panjab a protracted drought in the early summer retarded sowings, and the area sown was very much reduced.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December.

1893-94

In Bengal the rainfall was favourable at sowing time, and a large area was sown, but heavy and incessant rain and floods caused great injury.

In the United Provinces of Agra and Oudh a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a good yield.

In Madras larger sowings were made owing mainly to timely rains.

1894-95

In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In the United Provinces of Agra and Oudh, although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second-half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In the Panjab the areasown was increased, and the crop was good.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most places.

In the United Provinces of Agra and Oudh the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In the Panjab the crop was fair.

In Madras the season was favourable in Kistna and North Arcot where a large area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The yield generally was fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the United Provinces of Agra and Oudh germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair. Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield small.

1897-98

In Bengal the area sown was small, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the United Provinces of Agra and Oudh the season was not favourable; the growth of the plants was interfered with early in the season by excessive heat and insufficient rain, and the heavy rain of July and August flooded the low lands and greatly injured the indigo growing on them.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good.

In Madras the area sown was small, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food crops.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar.

In the United Provinces of Agra and Oudh the season was not favourable. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

INDIGO

1899-1900

In Bengal the season in the beginning was not unfavourable, but the excessive rain which fell in June, July, and August was most injurious, and the crop was also injured in many districts by the floods which followed the excessive rain.

In the United Provinces of Agra and Oudh the crop continued in good condition until the end of June, but excessive rain fell in July and seriously injured the plant everywhere, especially in the eastern districts. The rains then fell away and drought, particularly in the Agra and Meerut divisions, added to the injury done by heavy rain.

In the Panjab the crop suffered from the absence of rain and the stoppage of canal irrigation in Multan and Dera Ghazi Khan. In some unirrigated tracts it failed entirely.

In Madras also the season was generally unfavourable and the yield deficient.

1900-01

In Bengal sowings and the early growth of the crop were retarded by the scanty rain of April and May. Fairly good rain in June and July was followed by an interruption in August, but prospects were improved in Bihar by abundant rain in September, which, however, was accompanied by floods and consequent injury to the crop in Lower Bengal. In October sufficient rain fell, and the season generally was much better than that of 1899. The area, however, was restricted, owing to the substitution of other crops for indigo in north Bihar under the discouragement of the comparatively low level of prices during the preceding three seasons. The yield on the whole was good in the districts of north Bihar, but very poor in Lower Bengal where, however, the cultivation of indigo is now greatly restricted.

In the United Provinces of Agra and Oudh, unlike Bengal, the area sown increased, the increase being ascribed to the temporarily improved prices in the previous season. It may be that that improvement was an inducement to native growers of indgo, while it did not remove the discouragement to European planters. In the early months of the season prospects were good, but heavy rain in the Doab towards the end of the season reduced the yield.

In the Panjab the rains were late at sowing time, but the crop did well later when the rain came down abundantly.

In Madras the high prices of food-grains induced cultivators to restrict their sowings of indigo. The crop sown was very fair on the whole.

1901-02

In Bengal the season was on the whole unfavourable. During the early months of the year the rainfall was in slight defect but in May there was good and generally well distributed rain. The monsoon rains broke late and were deficient in June and July. There was little rain anywhere in October, and the showery weather at the end of November did not extend to north Bihar. Besides the unfavourable character of the season, the area was affected by the fall of prices resulting from the competition of synthetic indigo.

In the United Provinces of Agra and Oudh the reduction of area was proportionately much greater than in Bengal. The prospects of the crop, which had been affected by the late arrival of the monsoon, continued to be unsatisfactory until the end of August, but fine dry weather in September favoured manufacture.

In the Panjab a restricted area was sown owing to late inundation from canals in the south-western districts and the closing of factories consequent on the fall in prices. There was an insufficiency of rain and canal irrigation after the sowings, and some injury was done by locusts.

In Madras an extended area was sown in Nellore and Kistna owing to favourable weather for sowings, but almost everywhere else the cultivation of indigo continued to decline. The low prices realised, and the high prices of food-grains, are the principal reasons assigned for the decrease, but in the Carnatic, where the decrease was marked, the season was very unfavourable.

1902-03

In Bengal the season was generally very unfavourable owing to capricious and ill-distributed rainfall, and the outturn was the worst on record. The unfavourable prospects of the industry caused by the competition of synthetic indigo also contracted the area, which had been steadily diminishing in past years.

In the United Provinces of Agra and Oudh the decline in the cultivation of indigo caused by the fall in prices was very rapid and pronounced. The late commencement of the rains stunted the growth of the plant, which was further retarded in places by the continuous rain of July. The dry weather during August was, however, favourable and the produce of dye was reported to have been satisfactory.

In the Panjab the decrease in the area under indigo was almost as great as in the United Provinces, the contraction was due largely to the small margin of profit left by the fall in prices, but partly also to the insufficiency of canal water and unfavourable weather.

In Madras also the cultivation of indigo was fast declining as the low prices realised caused preference to be given to food crops and earthnut. The crop was reported to be generally good.

SUGARCANE

1899-1900

In Bengal the season was generally favourable to the crop at the beginning, but excessive rain in some parts, in August, September, and October, adversely affected prospects, while, in a few places, the crop was injured by the absence of seasonable rainfall and by insects.

In the United Provinces of Agra and Oudh the season was favourable until the autumn rains set in; but the excessive rainfall of June and July seriously injured it, and further injury was caused by the scanty rainfall of the succeeding months. Slight injury from insects was also reported from several districts.

In the Panjab the unfavourable weather conditions affected even the crop grown on irrigated lands, and cane grown on unirrigated land was practically a failure. The crop was stunted in growth and deficient in juice, while, owing to the great scarcity of fodder, the cane was used entirely or very largely in many districts as cattle-food.

In Madras the weather in many places was unfavourable, and some of the crop suffered from want of water, especially in the Circars.

1900-01

In Bengal the rainfall to the end of July was generally in defect; in August it was badly distributed and more or less deficient; in September it was copious and general; there was very little in October, and in November and December practically none. On the whole, the monsoon conditions were not very favourable to the crop, which also, in a few districts, suffered to some extent from insect pests.

In the United Provinces of Agra and Oudh the rains of February and March favoured sowings, and the crop germinated freely. Hot winds and afterwards insufficient rain in June and July retarded growth; but the crop was generally very healthy and promising. The rainfall was moderate in August but unusually heavy in September, and accompanied by high east winds. Floods also caused some local injury on low lands. On the whole the autumn rains greatly benefited the crop. November was rainless, but December and January were exceptionally wet; and cane-pressing was delayed in places by excessive rain.

In the Panjab the area under cane was slightly reduced, owing to dry weather at sowing time in April and May and to the fact that prices of food-grains were so high that it was more profitable to grow them than sugar on some lands. In Hoshiarpur, one of the chief cane-producing districts in the province, another reason assigned for the decline was the supersession of indigenous by imported sugar. In Sialkot it was said that a great number of cultivators emigrated with their cattle to other places owing to the dearness of food and scarcity of fodder in the previous year, and as most of the cane crop was used as fodder in the preceding year, the supply of seed was small and the price high. Although there was, on the whole, a decline in the area under cultivation, both irrigated and unirrigated, the season was far more favourable than the previous year.

In Madras early rains and an adequate supply in tanks led to increased sowings. The condition and yield of the crop were generally fair.

1901-02

In Bengal, on the whole, the season was not unfavourable, but rain was very scanty in February, March, and April, and the crop suffered from locusts and insects in a few districts. In December and January again there was a complete absence of rain. The area sown was below the normal owing to the unfavourable character of the early part of the season.

In the United Provinces of Agra and Oudh the rains of January and February 1901 were ample and germination was good, and the supply of water in the hot months was generally sufficient except in a few districts. Injury to the crop in several districts resulted from various causes—hot winds, insects, and the late arrival of the monsoon; but it was serious only in the Rohilkhand division and in parts of the Meerut division where the crop was attacked by grasshoppers. The autumn rain in July, though below the normal, was well distributed, and the rain in August was favourable and prospects improved materially, though the injury caused in the tracts mentioned could not altogether be made good. A break of about three weeks ensued early in September and the crop began to suffer, but at the end of the month heavy rain was received in the greater part of the province except the Meerut division which practically got no rain, while the falls in parts of the Agra and Rohilkhand divisions were insufficient. Some rain fell in places in October, but November and the greater part of December were rainless. The season was too dry to give a full yield of juice. In the two important cane-growing divisions of Meerut and Rohilkhand the crop was unpromising from the beginning owing to the injury caused by grasshoppers, and the drought of September and October further affected growth. In the other divisions the yield was somewhat better.

In the Panjab the area under sugarcane increased in irrigated tracts, but elsewhere there was a contraction due to scanty rain in March and April. The crop suffered from insects, locusts, and rats, and seriously from drought in September and October and the severe frost that followed. The result was so bad that in parts of Gujranwala the juice was not extracted and the cane was given as fodder to the cattle. The crop on the whole was below the average and, compared with the area, the estimated yield was disproportionately small. Another reason assigned for the decline was the supersession of indigenous by foreign sugar.

SUGARCANE

In the North-West Frontier Province the crop was on the whole above the average. Though the failure of rain at the time of its maturing caused some decrease in the yield, the decline was more than compensated by the increased acreage.

In Madras, on the whole, a full normal area was planted. Rainfall was deficient in some places; but the yield was on the whole fair, though in the Circars the crop was far from good and in the Godavari delta disease caused material loss.

1902-03

In Bengal the season was not generally unfavourable though excessive rain at the time of planting caused some contraction of area, and damaged the young plants in parts of north and east Bengal; while a few districts in Bihar, on the other hand, suffered from drought.

In the United Provinces of Agra and Oudh the rains at sowing time—*i.e.*, February and March—were very deficient. Germination was, however, good except in the eastern districts, where later on drought and whiteants did further damage. The autumn rains commenced in the first week of July, and continued with little break to its close. The falls were general and well distributed and generally above the normal. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over the greater part of the provinces, and in places some injury from drought resulted. The rainfall in September was almost uniformly excellent. Light rain was also received in October in most districts, while November and December were entirely rainless and were followed by severe frost, which damaged the cane crop more or less in the western half of the province just when pressing had begun.

In the Panjab there was a decrease in the area sown in all districts except Jalandhar and Karnál owing to the absence of rain and deficient supply in the canals in February and March. The monsoon rainfall of August and September was satisfactory but the subsequent failure of the winter rains and the severe December frost deteriorated the condition of the standing crop, and in parts of Lahore, Sialkot, and Amritsar it was used as fodder. The yield on the whole was consequently below average.

In the North-West Frontier Province the season was favourable for the sugarcane crop, and the inadequate rainfall had very little effect on this crop as it is grown exclusively on irrigated lands, and the canal irrigation on which the crop depends was satisfactory.

In Madras there was a contraction in the area owing to the shortness of water-supplies in parts at the planting season. The decrease was general and was particularly noticeable in South Arcot where it was ascribed to a fall in the prices of jaggery. The crop was reported to be generally good.

Tables of Area and Yield

SUMMARY TABLE OF PRODUCTION IN

		1891-92	1892-93	1893-94	1894-95	1895-96	1896-97
Rice	acres	49,539,031	48,358,707	49,525,300	50,002,241	49,396,747	48,021,462
	cwt	314,804,161	420,282,625	459,119,400	497,901,780	415,355,100	275,676,100
Wheat	acres	27,033,172	27,655,858	28,716,535	28,421,851	24,071,320	20,579,727
	tons	6,500,815	7,626,494	7,268,641	6,998,930	5,380,342	5,363,289
Cotton	acres	11,491,985	13,025,642	15,228,990	14,919,903	14,500,162	14,691,795
	bales	1,588,817	2,119,908	2,480,692	2,116,143	2,497,977	1,991,207
Linseed	acres	3,211,000	3,824,700	4,854,100	3,781,684	2,954,093	2,020,747
	tons	390,000	489,900	559,800	271,798	287,407	162,479
Rape and mustard	acres	1,775,000	3,675,000	3,676,100	3,582,181	3,004 913	2,910,682
	tons	175,000	622,300	546,200	521,031	462,064	441,814
Sesamum	acres	2,037,000	2,106,800	2,198,040	3,000,969	3,171,472	3,369,198
	tons	138,000	199,138	176,599	253,972	249,936	217,688
Jute	acres	...	2,135,142	2,222,600	2,264,300	2,242,700	2,196,600
	bales	...	5,717,444	5,001,700	6,144,300	6,425,900	5,032,000
Indigo	acres	...	1,218,766	1,552,008	1,688,042	1,414,002	1,608,901
	cwt	...	179,056	179,437	237,494	190,924	168,673
Earthnut	acres	...	...	...	...	216,200	273,526
	tons	...	...	...	...	...	...
Sugarcane	acres	...	...	...	...	...	...
	tons	...	...	...	...	...	...

EACH YEAR FROM 1891-92 TO 1902-03

1897-98	1898-99	1899-1900	1900-01	1901-02	1902-03		
52,205,466	52,682,050	51,969,635	48,932,493	48,511,190	50,962,495	acres	Rice
498,350,700	505,640,600	451,553,460	413,506,700	384,294,100	461,460,200	cwt	
24,537,775	25,370,078	18,687,782	24,178,150	23,446,161	23,312,118	acres	Wheat
7,206,384	6,837,774	5,357,142	7,181,507	6,090,524	7,894,412	tons	
14,023,237	14,403,092	11,657,576	14,366,350	14,506,295	15,744,746	acres	Cotton
2,382,726	2,807,343	956,540	2,730,231	2,645,455	2,687,813	bales	
2,707,887	2,829,475	1,648,903	2,417,991	2,546,604	2,584,813	acres	Linseed
354,994	336,610	206,220	247,024	251,808	387,593	tons	
3,822,996	3,109,988	2,693,768	4,138,666	3,082,662	3,450,497	acres	Rape and mustard
682,807	567,698	447,946	662,370	525,035	544,654	tons	
3,662,109	3,530,625	3,316,067	4,052,491	3,711,711	4,181,163	acres	Sesamum
310,917	305,918	187,456	332,856	256,710	427,737	tons	
2,151,600	1,624,400	1,961,800	2,093,400	2,263,800	2,138,700	acres	Jute
6,189,200	4,115,500	5,000,000	6,400,000	6,500,000	5,328,000	bales	
1,339,099	1,010,318	1,026,900	990,375	791,190	574,654	acres	Indigo
166,812	139,320	111,890	148,029	112,819	73,908	cwt	
203,903	217,814	173,946	294,408	434,222	468,545	acres	Earthnut
55,962	70,561	9,250	28,631	63,298	40,933	tons	
...	2,502,381	2,563,570	2,425,156	2,317,224	2,206,631	acres	Sugarcane
...	2,076,234	1,852,801	2,451,604	2,197,724	2,037,772	tons	

RICE

Province	acres	cwt	Province	acres	cwt
Bengal			*Burma*		
1891-92	39,552,008	284,804,161	1891-92	4,215,023	(a)
1892-93	37,324,907	333,956,225	1892-93	4,625,600	50,346,000
1893-94	37,886,500	374,227,800	1893-94	4,928,600	47,874,000
1894-95	38,639,500	416,857,200	1894-95	4,793,341	45,381,980
1895-96	37,447,600	317,514,600	1895-96	5,068,147	41,481,000
1896-97	36,177,400	179,637,400	1896-97	5,224,062	47,679,000
1897-98	39,549,500	398,142,900	1897-98	5,720,766	52,217,000
1898-99	39,605,400	405,842,900	1898-99	5,910,650	44,851,000
1899-1900	39,490,500	357,956,360	1899-1900	6,050,135	54,160,000
1900-01	36,013,900	311,508,600	1900-01	6,326,993	52,975,000
1901-02	35,094,800	272,201,900	1901-02	6,558,190	60,602,000
1902-03	37,082,100	354,111,400	1902-03	6,580,795	53,022,000
Madras			*Total*		
1891-92	5,771,000	30,000,200	1891-92	49,539,031	314,804,161
1892-93	6,408,200	35,980,400	1892-93	48,358,707	420,282,625
1893-94	6,710,200	37,017,600	1893-94	49,525,300	459,119,400
1894-95	6,569,400	35,662,600	1894-95	50,002,241	497,901,780
1895-96	6,881,000	56,359,500	1895-96	49,396,747	415,355,100
1896-97	6,620,000	48,359,700	1896-97	48,021,462	275,676,100
1897-98	6,935,200	47,991,700	1897-98	52,205,466	498,350,700
1898-99	7,166,000	54,946,700	1898-99	52,682,050	505,640,600
1899-1900	6,429,000	39,437,100	1899-1900	51,969,635	451,553,460
1900-01	6,591,600	49,023,100	1900-01	48,932,493	413,506,700
1901-02	6,858,200	51,490,200	1901-02	48,511,190	384,294,100
1902-03	7,299,600	54,326,800	1902-03	50,962,495	461,460,200

(a) Not stated

WHEAT

Province	acres	tons	Province	acres	tons
Panjab and N.-W. Frontier			*Bengal*		
1891-92	6,224,000	1,420,000	1891-92	1,300,000	250,000
1892-93	7,020,000	2,213,000	1892-93	1,559,000	466,000
1893-94	8,265,000	2,560,000	1893-94	1,461,000	459,000
1894-95	8,051,800	2,395,353	1894-95	1,413,000	686,300
1895-96	6,893,400	1,753,766	1895-96	1,427,400	345,600
1896-97	6,584,300	1,872,066	1896-97	1,311,700	386,100
1897-98	8,013,800	2,358,975	1897-98	1,569,500	592,600
1898-99	7,729,200	1,977,777	1898-99	1,582,500	656,400
1899-1900	6,366,500	1,823,182	1899-1900	1,550,300	572,700
1900-01	9,080,000	3,028,580	1900-01	1,498,700	472,600
1901-02	8,023,600	2,005,611	1901-02	1,408,300	391,500
1902-03	7,934,600	2,624,491	1902-03	1,445,900	501,100
United Provinces			*Bombay (including Native States)*		
1891-92	6,502,097	2,035,229	1891-92	2,176,000	426,000
1892-93	6,307,227	2,354,255	1892-93	2,475,000	654,000
1893-94	6,674,389	1,854,695	1893-94	2,525,000	762,000
1894-95	6,333,688	1,469,996	1894-95	2,678,665	744,961
1895-96	5,177,261	1,591,294	1895-96	2,288,838	454,865
1896-97	4,931,710	1,850,914	1896-97	1,446,741	288,002
1897-98	5,985,146	2,249,633	1897-98	2,004,832	627,914
1898-99	6,348,688	2,277,414	1898-99	2,470,998	737,385
1899-1900	6,202,826	2,410,052	1899-1900	1,157,077	99,408
1900-01	6,790,440	2,384,605	1900 01	1,433,810	298,479
1901-02	6,461,729	2,401,940	1901-02	1,510,459	179,034
1902-03	6,926,164	2,972,497	1902-03	1,617,891	502,508
Central Provinces			*Berar*		
1891-92	3,904,000	760,000	1891-92	888,000	136,055
1892-93	4,197,000	762,000	1892-93	985,000	166,395
1893-94	3,936,000	575,000	1893-94	928,000	170,893
1894-95	3,393,348	502,275	1894-95	889,326	150,232
1895-96	2,714,454	368,038	1895-96	747,025	103,084
1896-97	1,969,623	332,645	1896-97	381,425	23,413
1897-98	2,171,714	543,095	1897-98	390,378	41,983
1898-99	2,505,299	456,169	1898-99	436,362	53,571
1899-1900	1,633,070	201,803	1899-1900	17,910	414
1900-01	2,055,736	440,909	1900-01	243,554	29,900
1901-02	2,620,138	571,040	1901-02	280,085	34,385
1902-03	2,272,482	666,040	1902-03	216,955	17,498

WHEAT—*continued*

Province	acres	tons	Province	acres	tons
Sind (including Native States)			*Hyderabad*		
1891-92	483,000	117,000	1891-92	1,942,824	96,238
1892-93	604,000	204,000	1892-93	1,262,506	97,315
1893-94	531,000	161,000	1893-94	1,162,503	109,234
1894-95	673,251	215,361	1894-95	1,412,562	69,413
1895-96	315,559	71,683	1895-96	1,454,451	85,331
1896-97	406,752	116,470	1896-97	772,990	18,585
1897-98	591,621	177,160	1897-98	1,003,175	30,139
1898-99	369,706	81,231	1898-99	1,113,431	33,098
1899-1900	364,522	68,226	1899-1900	339,136	1,538
1900-01	479,487	123,160	1900-01	636,247	12,279
1901-02	534,004	109,009	1901-02	603,182	38,853
1902-03	301,648	68,531	1902-03	508,760	43,215
Rajputana			*Mysore*		
1891-92	1,471,000	362,000	1891-92	2,125	154
1892-93	1,604,000	431,000	1892-93	2,640	189
1893-94	1,646,000	389,000	1893-94	(*b*)	(*b*)
1894-95	1,529,146	368,168	1894-95	4,534	304
1895-96	1,306,868	315,573	1895-96	5,456	363
1896-97	1,374,346	293,932	1896-97	3,871	413
1897-98	1,302,233	307,062	1897-98	4,363	331
1898-99	1,196,014	276,388	1898-99	4,029	492
1899-1900	360,733	79,289	1899-1900	2,758	254
1900-01	713,290	170,682	1900-01	2,556	197
1901-02	541,834	103,869	1901-02	3,714	256
1902-03	818,399	190,841	1902-03	5,123	531
Central India			*Total*		
1891-92	2,040,126	898,139	1891-92	27,033,172	6,500,815
1892-93 (*a*)	1,639,485	278,340	1892-93	27,655,858	7,626,494
1893-94 (*a*)	1,537,143	227,819	1893-94	28,716,535	7,268,641
1894-95	2,042,531	396,567	1894-95	28,421,851	6,998,930
1895-96	1,740,608	290,745	1895-96	24,071,320	5,380,342
1896-97	1,366,269	179,949	1896-97	20,579,727	5,363,289
1897-98	1,501,013	279,492	1897-98	24,537,775	7,208,384
1898-99	1,613,851	287,749	1898-99	25,370,078	6,837,674
1899-1900	692,950	100,276	1899-1900	18,687,782	5,357,142
1900-01	1,244,330	220,116	1900-01	24,178,150	7,181,507
1901-02	1,459,116	255,027	1901-02	23,446,161	6,090,524
1902-03	1,264,196	307,160	1902-03	23,312,118	7,894,412

(*a*) Incomplete

(*b*) No information

COTTON

Province	acres	bales of 400 lb
Bombay (including Native States)		
1891-92	5,136,000	683,000
1892-93	5,286,400	946,400
1893-94	5,910,900	927,100
1894-95	5,292,717	782,497
1895-96	5,303,598	915,575
1896-97	5,033,549	723,587
1897-98	4,751,103	834,004
1898-99	5,098,145	1,101,039
1899-1900	3,095,206	78,967
1900-01	4,240,140	672,278
1901-02	4,394,796	518,396
1902-03	4,276,903	795,233
Berar		
1891-92	2,244,000	347,820
1892-93	2,186,600	338,923
1893-94	2,184,800	409,650
1894-95	2,102,956	294,414
1895-96	2,071,856	388,473
1896-97	2,306,870	213,385
1897-98	2,150,329	435,442
1898-99	2,476,306	538,597
1899-1900	1,983,602	59,508
1900-01	2,521,651	630,413
1901-02	2,689,201	584,901
1902-03	2,766,300	(*a*) 275,314
Madras		
1891-92	1,243,000	80,000
1892-93	1,326,200	103,600
1893-94	1,724,000	121,200
1894-95	1,521,500	106,980
1895-96	1,623,900	120,524
1896-97	1,395,400	104,655
1897-98	1,509,100	118,876
1898-99	1,321,700	127,670
1899-1900	1,382,700	101,440
1900-01	1,373,300	118,320
1901-02	1,351,200	(*b*) 130,130
1902-03	1,527,400	156,260
Hyderabad		
1892-93	1,384,450	168,004
1893-94	1,456,283	147,199
1894-95	1,611,912	117,277
1895-96	1,492,768	173,283
1896-97	1,558,296	137,153
1897-98	1,653,669	163,449
1898-99	1,738,379	222,302
1899-1900	1,292,329	91,975
1900-01	1,698,836	288,570
1901-02	1,689,139	300,301
1902-03	2,114,099	(*c*) 250,986
United Provinces		
1891-92	1,011,985	163,997
1892-93	837,892	161,881
1893-94	1,069,307	296,643
1894-95	1,214,747	198,333
1895-96	1,060,905	280,414
1896-97	1,150,069	260,521
1897-98	919,671	226,478
1898-99	933,395	261,304
1899-1900	996,673	227,787
1900-01	1,046,176	294,169
1901-02	1,153,870	368,638
1902-03	1,255,241	327,728
Panjab and N.-W. Frontier		
1891-92	498,000	112,000
1892-93	549,900	118,200
1893-94	948,300	200,900
1894-95	1,124,500	231,997
1895-96	1,161,200	241,667
1896-97	1,176,700	204,806
1897-98	1,128,400	223,947
1898-99	788,600	166,707
1899-1900	988,400	138,926
1900-01	1,215,400	205,203
1901-02	1,067,200	220,225
1902-03	1,221,000	234,773

(*a*) Defective.

(*b*) Estimated yield, including zamindári tracts, 181,200 bales

(*c*) Estimated yield, including jagir areas, 330,000 bales

COTTON—*continued*

Province	acres	bales of 400 lb
Central Provinces		
1891-92	738,000	52,000
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	668,522	165,169
1899-1900	712,836	117,050
1900-01	1,004,812	(*b*) 268,958
1901-02	981,342	267,737
1902-03	1,139,714	269,662
Rajputana		
1891-92	517,000	117,000
1892-93	500,400	133,300
1893-94 (*c*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	476,604	117,743
1899-1900	325,033	44,161
1900-01	369,384	104,390
1901-02	281,934	87,858
1902-03	456,503	164,142
Central India		
1893-94 (*d*)	295,300	31,900
1894-95	512,936	38,000
1895-96	420,239	49,500
1896-97	522,683	45,900
1897-98	417,456	60,600
1898-99	471,408	46,800
1899-1900	479,565	23,100
1900-01	542,673	63,900
1901-02	529,094	72,200
1902-03	586,122	98,200
Bengal		
1892-93	231,800	31,800
1893-94	216,000	30,400
1894-95	203,700	33,489
1895-96	197,900	26,009
1896-97	157,100	20,164
1897-98	174,000	29,890
1898-99	167,900	25,973
1899-1900	160,600	23,149
1900-01	127,700	26,069
1901-02	118,500	19,756
1902-03	114,300	20,400
Sind (including Native States)		
1891-92	104,000	33,000
1892-93	69,800	32,400
1893-94	115,800	64,400
1894-95	113,589	47,264
1895-96	111,855	43,730
1896-97	123,706	48,595
1897-98	108,227	34,437
1898-99	92,312	34,039
1899-1900	92,069	17,577
1900-01	84,560	36,884
1901-02	129,409	62,188
1902-03	153,158	74,001
Burma		
1898-99	167,821	—
1899-1900	148,563	32,900
1900-01	141,718	21,077
1901-02	130,610	13,125
1902-03	134,006	21,114
Total		
1891-92	11,491,985	1,588,817
1892-93	13,025,642	2,119,908
1893-94	15,228,990	2,480,692
1894-95	14,919,903	2,116,143
1895-96	14,500,162	2,497,977
1896-97	14,691,795	1,991,207
1897-98	14,023,237	2,382,726
1898-99	14,403,092	2,807,343
1899-1900	11,657,576	956,540
1900-01	14,266,350	2,730,231
1901-02	14,506,295	2,645,455
1902-03	15,744,746	2,687,813

(*a*) Exclusive of zamindári area in Raipur, Bilaspur, and Sambalpur

(*b*) Represent exports and consumption of the years ending the 30th September as the estimates of the yield are imperfect

(*c*) Exclusive of Tonk

(*d*) Exclusive of the greater part of the Bhopal Agency

LINSEED

Province	acres	tons
Bengal		
1892-93	805,700	121,900
1893-94	777,100	131,800
1894-95	732,900	120,900
1895-96	712,700	95,600
1896-97	587,800	84,900
1897-98	662,800	125,400
1898-99	677,900	144,700
1899-1900	653,200	126,700
1900-01	806,700	133,400
1901-02	783,800	110,600
1902-03	864,200	160,000
United Provinces (a)		
1891-92	622,000	110,000
1892-93	481,000	74,000
1893-94	742,000	101,000
1894-95	753,857	69,165
1895-96	403,565	55,796
1896-97	235,166	40,036
1897-98	519,461	110,619
1898-99	438,728	87,854
1899-1900	357,880	73,267
1900-01	448,206	75,780
1901-02	373,092	75,876
1902-03	576,623	145,406
Central Provinces		
1891-92	1,388,000	112,000
1892-93	1,384,000	134,000
1893-94	1,788,000	132,000
1894-95	1,498,672	42,532
1895-96	730,750	45,253
1896-97	527,421	19,391
1897-98	683,728	69,783
1898-99	838,255	58,955
1899-1900	306,933	4,319
1900-01	495,165	20,652
1901-02	609,596	32,786
1902-03	495,457	42,271

Province	acres	tons
Hyderabad		
1896-97	324,455	11,355
1897-98	438,030	15,141
1898-99	426,045	13,445
1899-1900	171,970	1,506
1900-01	371,983	8,774
1901-02	370,376	18,403
1902-03	358,056	19,535
Berar		
1891-92	364,000	35,000
1892-93	354,000	21,000
1893-94	578,000	29,000
1894-95	385,563	13,893
1895-96	500,650	27,497
1896-97	188,142	4,576
1897-98	180,472	10,405
1898-99	171,085	7,683
1899-1900	21,564	—
1900-01	154,716	5,382
1901-02	185,738	9,606
1902-03	120,753	7,289
Bombay (including Native States)		
1891-92	270,000	19,000
1892-93	233,000	25,000
1893-94	402,000	52,000
1894-95	410,692	25,508
1895-96	606,428	63,261
1896-97	157,763	2,221
1897-98	223,396	23,646
1898-99	277,462	23,975
1899-1900	137,356	428
1900-01	141,221	3,036
1901-02	224,002	4,537
1902-03	169,724	13,092
Rest of India		
1891-92	567,000	114,000
1892-93	567,000	114,000
1893-94	567,000	114,000
Total		
1891-92	3,211,000	390,000
1892-93	3,824,700	489,900
1893-94	4,864,100	559,800
1894-95	3,781,684	271,798
1895-96	2,954,093	287,407
1896-97	2,020,747	162,479
1897-98	2,707,887	354,994
1898-99	2,829,475	336,610
1899-1900	1,648,903	206,229
1900-01	2,417,991	247,021
1901-02	2,546,604	251,808
1902-03	2,584,813	387,593

(a) Linseed is also sown in the United Provinces as a mixture with other crops on an area of about 4 million acres on the average but forms a small share of the total of the mixed crop. The outturn which cannot be determined with any precision is gathered mostly for home consumption

RAPE AND MUSTARD

Province	acres	tons
Bengal		
1892-93	2,256,000	372,300
1893-94	2,209,100	334,200
1894-95	2,221,600	343,700
1895-96	2,148,400	332,400
1896-97	2,003,900	312,300
1897-98	2,239,700	438,600
1898-99	2,167,200	448,200
1899-1900	2,032,900	371,900
1900-01	2,043,200	337,800
1901-02	1,922,400	372,900
1902-03	1,907,800	340,600
Panjab and N.-W. Frontier		
1891-92	594,000	68,000
1892-93	850,000	135,000
1893-94	900,000	112,000
1894-95	802,600	97,224
1895-96	475,100	50,602
1896-97	515,300	52,756
1897-98	1,112,300	142,115
1898-99	582,600	56,041
1899-1900	397,500	26,761
1900-01	1,699,700	260,167
1901-02	739,500	73,084
1902-03	1,055,800	107,519
United Provinces(a)		
1891-92	132,000	32,000
1892-93	126,000	27,000
1893-94	131,000	21,000
1894-95	109,347	16,497
1895-96	95,678	26,554
1896-97	83,372	18,524
1897-98	88,822	28,417
1898-99	92,679	22,884
1899-1900	76,180	21,186
1900-01	94,130	24,060
1901-02	120,436	36,841
1902-03	141,884	49,922
Hyderabad		
1896-97	1,994	73
1897-98	3,828	140
1898-99	8,796	286
1899-1900	905	6
1900-01	16,597	286
1901-02	12,077	146
1902-03	12,377	282
Sind (including Native States)		
1891-92	169,000	22,000
1892-93	140,000	20,000
1893-94	111,000	17,000
1894-95	222,413	24,852
1895-96	53,664	8,503
1896-97	72,093	11,101
1897-98	154,248	27,277
1898-99	70,766	8,601
1899-1900	64,637	6,193
1900-01	119,596	12,304
1901-02	113,140	12,049
1902-03	103,293	10,551
Assam		
1891-92	168,000	36,000
1892-93	170,000	45,000
1893-94	168,000	34,000
1894-95	134,399	20,249
1895-96	182,640	36,388
1896-97	178,408	38,853
1897-98	167,268	31,878
1898-99	134,856	21,891
1899-1900	119,110	21,789
1900-01	126,309	21,140
1901-02	157,671	28,294
1902-03	173,984	27,788
Bombay (including Native States)		
1891-92	44,000	7,000
1892-93	65,000	13,000
1893-94	89,000	18,000
1894-95	91,822	18,509
1895-96	49,431	7,617
1896-97	55,615	8,207
1897-98	56,830	14,380
1898-99	53,091	9,795
1899-1900	2,536	111
1900-01	39,134	6,613
1901-02	17,438	1,721
1902-03	55,359	7,992
Rest of India		
1891-92	68,000	10,000
1892-93	68,000	10,000
1893-94	68,000	10,000
Total		
1891-92	1,175,000	175,000
1892-93	3,675,000	622,300
1893-94	3,676,100	546,200
1894-95	3,582,181	521,031
1895-96	3,004,913	462,064
1896-97	2,910,682	441,814
1897-98	3,822,996	682,807
1898-99	3,109,988	567,698
1899-1900	2,693,768	447,946
1900-01	4,138,666	662,370
1901-02	3,082,662	525,035
1902-03	3,450,497	544,654

(a) Rapeseed is also sown in the United Provinces as a mixture with other crops on an area of about 8½ million acres on the average but forms a small share of the total of the mixed crop. The outturn which cannot be determined with any precision is gathered mostly for home consumption

SESAMUM

Province	acres	tons	Province	acres	tons
Madras			*United Provinces*		
1891-92	501,000	4,900	1891-92	142,000	8,000
1892-93	318,600	(a) 5,522	1892-93	152,600	14,700
1893-94	296,300	5,290	1893-94	200,600	19,700
1894-95	613,600	16,739	1894-95	177,043	15,513
1895-96	824,700	22,507	1895-96	148,833	14,554
1896-97	562,800	14,830	1896-97	177,785	12,222
1897-98	826,000	24,100	1897-98	147,817	14,994
1898-99	690,700	25,900	1898-99	155,178	15,159
1899-1900	665,900	19,300	1899-1900	203,604	22,743
1900-01	850,000	28,200	1900-01	238,154	28,431
1901-02	727,700	26,900	1901-02	252,870	23,226
1902-03	797,000	30,300	1902-03	315,698	35,280
Bombay (including Native States)			*Sind (including Native States)*		
1891-92	590,000	79,000			
1892-93	703,500	105,500	1891-92	103,000	(a) 7,800
1893-94	668,600	78,900	1892-93	109,500	10,516
1894-95	754,072	100,438	1893-94	177,740	12,309
1895-96	843,039	98,104	1894-95	191,040	15,892
1896-97	770,553	65,600	1895-96	151,038	12,052
1897-98	681,905	103,136	1896-97	183,873	12,384
1898-99	754,327	115,566	1897-98	154,812	8,260
1899-1900	303,148	6,186	1898-99	114,129	8,285
1900-01	719,642	105,167	1899-1900	158,957	7,323
1901-02	802,935	64,421	1900-01	105,881	4,468
1902-03	915,641	177,530	1901-02	99,693	5,985
			1902-03 (a)	97,797	5,278
Central Provinces			*Berar*		
1891-92	456,000	17,000			
1892-93	503,000	33,000	1891-92	123,000	6,300
1893-94	534,700	31,300	1892-93	115,100	4,000
1894-95	520,099	27,714	1893-94	85,300	3,200
1895-96	569,407	45,243	1894-95	69,715	2,359
1896-97	627,948	43,953	1895-96	76,155	2,704
1897-98	749,491	67,770	1896-97	103,298	3,515
1898-99	634,268	43,475	1897-98	135,164	6,573
1899-1900	1,026,257	62,132	1898-99	135,483	5,620
1900-01	983,260	82,138	1899-1900	116,089	1,436
1901-02	710,641	39,020	1900-01	149,022	9,554
1902-03	882,729	78,191	1901-02	118,249	2,958
			1902-03	137,974	4,868
Bengal			*Hyderabad*		
1894-95	356,200	43,400			
1895-96	368,900	36,000			
1896-97	332,500	30,800	1896-97	387,041	13,005
1897-98	367,500	49,900	1897-98	404,020	13,200
1898-99	367,200	52,100	1898-99	426,740	14,463
1899-1900	388,200	49,700	1899-1900	237,512	2,383
1900-01	396,000	45,400	1900-01	392,032	10,421
1901-02	411,100	54,900	1901-02	377,023	21,660
1902-03	384,800	46,200	1902-03	405,524	29,271
Panjab and N.-W. Frontier			*Total*		
1891-92	122,000	15,000	1891-92	2,037,000	138,000
1892-93	204,500	25,900	1892-93	2,106,800	199,138
1893-94	234,800	25,900	1893-94	2,198,040	176,599
1894-95	319,200	31,917	1894-95	3,000,969	253,972
1895-96	189,400	18,772	1895-96	3,171,472	249,936
1896-97	223,400	21,379	1896-97	3,369,198	217,688
1897-98	195,400	22,984	1897-98	3,662,109	310,917
1898-99	252,600	25,350	1898-99	3,530,625	305,918
1899-1900	216,400	16,253	1899-1900	3,316,067	187,456
1900-01	218,500	19,077	1900-01	4,052,491	332,856
1901-02	211,500	17,640	1901-02	3,711,711	256,710
1902-03	244,000	20,819	1902-03	4,181,163	427,737

(a) Incomplete

JUTE

Province	acres	bales of 400 lb	Province	acres	bales of 400 lb
Bengal			*Assam*		
1891	(a) 1,403,445	(a) 2,971,794			
1892	2,135,142	5,717,444	1902	32,400	48,000
1893	2,222,600	5,001,700			
1894	2,264,300	6,144,300			
1895	2,242,700	6,425,900			
1896	2,196,600	5,032,000			
1897	2,151,600	6,189,200	*Total*		
1898	1,624,400	4,115,500			
1899	1,961,800	5,000,000	1902	2,138,700	5,328,000
1900	2,093,400	6,400,000			
1901	2,263,800	6,500,000			
1902	2,106,300	5,280,000			

INDIGO

Province	acres	cwt	Province	acres	cwt
Bengal			*Madras*—continued		
1892-93	645,950	92,006	1897-98	323,900	61,460
1893-94	648,928	67,285	1898-99	210,600	30,320
1894-95	629,100	104,485	1899-1900	249,000	33,340
1895-96	552,700	73,133	1900-01	251,900	46,100
1896-97	582,200	56,671	1901-02	239,400	38,480
1897-98	529,500	50,415	1902-03	186,000	35,300
1898-99	512,100	74,321			
1899-1900	449,200	44,996			
1900-01	360,600	47,707			
1901-02	311,200	41,820			
1902-03	253,500	21,585			
			Panjab		
			1891-92	52,200	9,256
			1892-93	65,300	10,085
			1893-94	110,700	15,946
			1894-95	124,200	24,005
United Provinces			1895-96	104,300	20,325
			1896-97	135,400	20,549
1891-92	201,269	20,533	1897-98	108,800	17,392
1892-93	206,516	26,545	1898-99	47,200	8,263
1893-94	349,980	38,106	1899-1900	97,300	15,577
1894-95	420,242	41,524	1900-01	115,700	22,693
1895-96	342,102	33,786	1901-02	71,600	13,533
1896-97	436,601	40,713	1902-03	42,000	7,016
1897-98	376,899	37,545			
1898-99	240,418	26,416			
1899-1900	231,400	17,977			
1900-01	262,175	31,529			
1901-02	168,990	18,986			
1902-03	93,154	10,007			
			Total		
			1891-92 (a)	419,599	48,329
			1892-93	1,218,766	179,056
			1893-94	1,552,008	179,437
			1894-95	1,688,942	237,494
Madras			1895-96	1,414,002	190,924
			1896-97	1,608,901	168,673
1891-92	166,130	18,540	1897-98	1,339,099	166,812
1892-93	301,000	50,420	1898-99	1,010,318	139,320
1893-94	442,400	58,100	1899-1900	1,026,900	111,890
1894-95	514,500	67,480	1900-01	990,375	148,029
1895-96	414,900	63,680	1901-02	791,190	112,819
1896-97	454,700	50,740	1902-03	574,654	73,908

(a) Incomplete

EARTHNUT

Province	acres	tons
Madras		
1895-96	216,200	(a)
1896-97	124,800	
1897-98	83,600	
1898-99	116,200	
1899-1900	102,000	
1900-01	229,997	
1901-02	337,600	
1902-03	421,900	
Bombay (including Native States)		
1896-97	148,726	(a)
1897-98	120,303	(b) 55,962
1898-99	101,614	70,561
1899-1900	71,946	9,250
1900-01	64,411	28,631
1901-02	96,622	63,298
1902-03	46,645	40,933

	acres	tons
Total		
1895-96	(c) 216,200	(a)
1896-97	273,526	(a)
1897-98	203,903	(d) 55,962
1898-99	217,814	(d) 70,561
1899-1900	173,946	(d) 9,250
1900-01	294,408	(d) 28,631
1901-02	434,222	(d) 63,298
1902-03	468,545	(d) 40,933

SUGARCANE

Province	acres	tons
Bengal		
1898-99	861,100	871,435
1899-1900	884,400	817,185
1900-01	801,800	811,420
1901-02	661,200	676,410
1902-03	664,700	672,675
United Provinces		
1898-99	1,227,881	1,204,799
1899-1900	1,259,070	838,885
1900-01	1,212,456	1,193,214
1901-02	1,228,691	976,222
1902-03	1,159,779	904,132
Panjab and N.-W. Frontier		
1898-99	367,900	(a)
1899-1900	365,700	196,731
1900-01	355,500	446,970
1901-02	376,233	435,692
1902-03	336,052	367,565

Province	acres	tons
Madras		
1898-99	45,500	(a)
1899-1900	54,400	(a)
1900-01	55,400	(a)
1901-02	51,100	109,400
1902-03	46,100	93,400
Total		
1898-99	2,502,381	(d)2,076,234
1899-1900	2,563,570	(d)1,852,801
1900-01	2,425,156	(d) 2,451,604
1901-02	2,317,224	2,197,721
1902-03	2,206,631	2,037,772

(a) No information (b) Excluding Native States (c) Madras only (d) Incomplete

Sixth Issue]

AREA AND YIELD

OF CERTAIN PRINCIPAL CROPS IN INDIA

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

SUGARCANE

FOR VARIOUS PERIODS FROM

1891-92 TO 1903-04

CALCUTTA
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA
1904

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BOMBAY BRANCH
OF THE
Royal Asiatic Society.

INTRODUCTORY NOTE.

THE Government of India issue periodically during the year estimates of the yield of certain crops compiled, from local statements, in the Statistical Department.

It has been the practice to issue a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two. The summaries in the present publication are a condensation with corrections of the final estimates presenting in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables, abstracted from those appended to the final estimates, in which are stated the area sown and the estimated yield of the crops. The estimates are not made for the whole of India and are necessarily, in the most favourable circumstances, only approximations to the truth. The very complete agricultural records in most of the provinces in connection with the assessment of the land revenue enable the area sown with each crop to be often stated with great exactness, but an equally important factor in determining the outturn, namely, the average yield per acre, has to be estimated, and exactness can be obtained only by the most careful analysis of the classes of soil, the methods of cultivation, and the conditions of each season, that is generally the quantity and dates of the rainfall in every part of the reporting area. The quantitative estimates are thus often imperfect and generally they have been too low. The attention recently paid to the estimates of the cotton crop, which will doubtless lead to greater accuracy in future, has shown that some of the estimates relating to past years were extremely defective. The revision of the estimates which was attempted has been only partially successful, as the known deficiency in the total production cannot always be distributed owing to the large unregistered movements of cotton across provincial boundaries by road, and the want of reliable information for some of the Native States. The production since 1891-92 of the principal cotton growing provinces is, however, now stated with some approach to accuracy.

The estimates of area, however exact they may be for particular regions, are defective as estimates for the whole of India. Thus forecasts of some of the crops are received only from provinces and States where those crops are extensively grown. The rice statistics, for instance, relate only to Bengal, Burma, and Madras, and those for sugarcane to Bengal, Madras, the United Provinces, the Panjab, and the North-West Frontier. The completest estimates are received of cotton and wheat, sixteen provinces and States, and political agencies furnishing reports on the former and twelve on the latter; but these estimates also are not for the whole of those territories, for, with some exceptions, those tracts have been excluded which have not been accurately surveyed or are held under privileged tenures, and hence do not possess the regular establishments maintained elsewhere for reporting the area placed under each crop. The most serious omission from this cause is in the figures for Madras, which is a large producer of rice, cotton, sesamum, and indigo, but has hitherto made forecasts only for the Government villages or about two-thirds of the area of the British districts. The Feudatory States within provincial boundaries are also omitted from the forecasts of all the provinces except Bombay and Sind. But for these omissions and a certain element of

uncertainty in regard to crops which are sown as mixtures of two or more crops in the same field, the estimates of area relating to the Panjab, Berar, the United Provinces, the Central Provinces, and Madras may be regarded as fairly exact. The statistics for the British districts of Bombay also stand in the front rank, but in this publication they are combined with the more conjectural figures of the provincial Feudatory States as a large proportion of the cotton, oilseeds, and wheat is grown in those States. The statistics of area for Bengal which relate to nearly the whole of the cultivated portion of the province, omitting unimportant Feudatory States, are more conjectural as they rest on estimates, based on varied sources of information, which have been verified by cadastral surveys for not quite a fifth of the area.

The statistics for the State of Hyderabad and the numerous States in the Central India and Rajputana Agencies rest on similar data to those of British India, and like them mostly refer to tracts where a reporting agency exists, though not equal in efficiency to that of the neighbouring British Provinces. Estimates are also included for some of the revenue-free lands held on privileged tenures.

J. A. ROBERTSON,
Director-General of Statistics.

November 11, 1904.

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AREA AND YIELD

OF

CERTAIN PRINCIPAL CROPS IN INDIA

LIBRARY OF THE BOMB BRANCH OF THE ROYAL ASIATIC S...

SUMMARY OF THE CONDITIONS OF THE SEASON FROM 1891-92 TO 1903-04

RICE

1891-92

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. Deficient rain during the early part of the season also affected the autumn crop.

In Madras too the season was adverse, the rain failing over large areas.

In Burma conditions were satisfactory.

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.

In Burma conditions were good everywhere.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.

In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable.

1894-95

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.

In Madras the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.

In Burma the crop suffered somewhat from insufficient rain.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.

In Madras the crop generally was fair, though in some places, in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there

RICE

was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.

In Burma the season was favourable and the crop excellent.

1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

1898-99

In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900

In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01

In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

1901-02

In Bengal the season was not entirely favourable for the autumn rice. From April to August the rainfall was unevenly distributed, and in July it was deficient almost everywhere. General and copious rain fell in September, but in October the rains ceased abruptly. For the winter rice the season was more unfavourable. The abrupt termination of the monsoon in September, for there was very little general rain in October, did great injury to the crop, and in all the Bihar districts, where the rainfall in June was also very deficient, it was a failure. The weather was seasonable during transplantation which led to an increase in the area sown.

In Madras the season was not so favourable for early planting as in 1900, but owing to good supplies of water from the irrigation works and generally good rain in August and September an area about equal to the average yielded a crop rather more than the average of recent years.

In Burma conditions were favourable. Rain fell at the end of the first week in February, but the crop, which was greatly in excess of the average, was but very slightly injured.

1902-03

In Bengal the season was not quite favourable for the autumn rice. The ante-monsoon showers were abnormally heavy, and the monsoon rainfall which came somewhat late was unevenly distributed. October was abnormally dry and November was literally rainless. For the winter rice the season, though capricious, was not unfavourable. The weather was seasonable during transplantation. And had it not been for the deficiency of the October rains, the crop would have been much above the average.

In Madras, there was an increase in the area sown chiefly in Cuddapah, Chingleput, and North Arcot, owing to the favourable character of the season. The condition of the crop was generally good.

In Burma floods caused damage in Tharawady and Thongwa and a decrease in cultivation in Henzada. In Myaungmya the fallow area was large owing to cattle disease and sickness among the cultivators, and in Prome owing to untimely rainfall; otherwise prospects were bright.

RICE

1903-04

In Bengal the season was generally unfavourable for the autumn rice owing to a deficient rainfall in the early part of the season and heavy falls at and after the harvest. For the winter rice also the season was not altogether favourable, for although general and abundant rainfall was received at the latter part of the season, the defect at the beginning and, except in Orissa and north Bengal, in the total fall of the season affected not only the area sown, but also the growth of the plants.

In Madras an extended area was sown owing to good and timely rainfall. The condition of the crop was reported to be fair.

In Burma prospects were very favourable, though slight damage had been caused by rain in some districts. The quality of the new grain was reported to be excellent.

WHEAT.

1891-92

In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts in February, injured the crop.

In the United Provinces of Agra and Oudh heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth, and the crop was injured by early west winds in some parts of Bihar and north and east Bengal.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnátak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the United Provinces of Agra and Oudh the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and was favourable to germination. The winter rains benefited the crop, especially on unirrigated land.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the United Provinces of Agra and Oudh the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

WHEAT

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

In Bombay the monsoon rainfall was excessive for *kharif* sowings and the area left unsown was utilized for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the United Provinces of Agra and Oudh the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable and rust was common.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In the Nizam's Territory heavy rain late in the season reduced the yield.

1895-96

In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the United Provinces of Agra and Oudh the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

1896-97

In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March, and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the United Provinces of Agra and Oudh the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In the Nizam's Territory the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in

February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second-half of May damaged the grain on the threshing-floors.

In the United Provinces of Agra and Oudh the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

In Bengal the season was favourable; the autumn rain was copious and well distributed, and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In the Nizam's Territory the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the United Provinces of Agra and Oudh the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable: the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second-half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient innundation, and scanty rainfall.

In the Nizam's Territory the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the third week of January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the United Provinces of Agra and Oudh the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attempted on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was in almost absolute failure.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of

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the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In the Nizam's Territory the conditions and results were similar to those in Berar.

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail floods, excessive rain, and water-logging, as also, when the damage was caused on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the United Provinces of Agra and Oudh, the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield.

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarat rust, insects, and cloudy weather did harm. In the Deccan and Karnátak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

In the Nizam's Territory sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.

In Rajputana and Central India both area and yield were much below the average.

1901-02

In the Panjab the monsoon rainfall was less plentiful than usual and ceased early; the winter rains failed entirely. There were no late sowings, and the whole crop went practically without rain until the latter half of March when slight showers saved the withering crop from total destruction in some places. High winds and severe frost in February also proved detrimental to the standing crop, and the yield was decidedly below the average, even on irrigated lands. On irrigated lands the failure was far more extensive. On lands irrigated by wells a considerable part of the crop was in some places used as fodder for cattle. Some injury was done in places by hailstorms and by rust.

In North-West Frontier Province the season throughout was one of unusual drought. From October to the end of February no rain fell and sowings on unirrigated lands were much reduced; the crop, where sown, in most cases withered away in March. A normal area was sown on irrigated lands which account for one-third of the crop of the season.

In the United Provinces of Agra and Oudh the monsoon of 1901 was abnormally delayed, and general rain did not set in until the 10th of July. The fall in July and August was well distributed and sufficient; but in the next two months it was deficient in the Meerut division and in parts of Agra and Rohilkhand where sowings in most places were effected with the aid of irrigation. November and the first three weeks of December were entirely rainless, and irrigation was resorted to wherever possible. The season was unusually dry and the unirrigated crop suffered generally from drought.

In Bengal the rainfall in Bihar was deficient in September and seriously in defect in October, and there was practically no rain until March, when it was too late to benefit the crop. There was a contraction in the area sown owing to drought at the sowing season in Bihar where the yield was much below the normal.

In the Central Provinces the season was abnormally dry, the October rain on which the germination of wheat largely depends, being represented by only a few local showers, and there was no rain thereafter except in the first-half of January in some places. Frost, rats, and insects also injured the crop.

In Berar the monsoon rainfall was in excess of the normal, and although there were no winter rains, the moisture in the soil at sowing time was sufficient to promote the growth of

the young plants and to bring the wheat satisfactorily into ear. At this stage, however, rats appeared in large numbers and did considerable injury, destroying in some localities almost the whole crop of the field in a single night.

In Bombay there was a contraction in the area sown owing to the deficiency of late rain. In Gujarat and north Deccan, the September rain was very deficient and sowings made little progress until after the October rains. No rain fell in November and December, and the crop suffered considerable not only from want of surface moisture, but also from the scanty supply in the wells. The surviving crop was further almost destroyed by a very severe plague of rats. In the south Deccan and the Karnátak, the September rain was generally sufficient, but that in October was below the average and checked full sowings. Later rains were light and partial and the crop withered in many places, particularly in the eastern tracts where no rain fell and no irrigation was possible. Damage by insects and disease was also reported from a few places. The Sind crop was fairly good.

In the Nizam's Territory conditions were at first somewhat favourable, but rats did considerable injury in places and over a large area; the late rains were also not favourable.

In Rajputana both area and yield were much below the average. In Central India the area and yield were larger than the quinquennial average, but a little short of the decennial average.

1902-03

In the Panjab the monsoon rains continued late into September; and light but fairly general showers continued up to the third week in October. These conditions were favourable for early sowing on irrigated lands, and a considerable area was sown, except in the Mooltan division where canal water and rainfall were insufficient. The practical absence of rain until the fourth week of January rendered late sowings on dry lands impossible, and caused much injury to crops on such lands. In the submontane and central districts good rain fell in the fourth week of January, which considerably improved prospects. February was practically rainless, and a very anxious period ensued until the advent of copious, frequent, and general rain in March in most of the districts. Good showers continued well into April, which would have caused much damage to the crops, but in 1902-03 it was beneficial as the crop was very backward. On the whole the conditions were favourable at the beginning and end of the season, but the prolonged drought in the middle of the season caused considerable injury to the crops on dry lands.

In the North-West Frontier Province, owing to the favourable and timely rain in August, September, and October, large sowings were made on unirrigated lands. But the crop was in a precarious state owing to the total failure of rain for the next three months. A timely fall in the last week of January, however, saved the situation for the time being. But February was again absolutely rainless and prospects became very dismal. Rain fortunately again set in early in March and up to harvest time was almost overabundant. On the whole the season was a favourable one. The crop came to maturity in a good healthy condition, but the quality of the grain was damaged to some extent when it was lying on the threshing-floor by the heavy rains of April and May.

In the United Provinces of Agra and Oudh the autumn rains set in rather late in July. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the province. The rainfall of September was almost uniformly excellent. Light rain was also received in October in most districts. Little interference was thus caused with the preparation of fields; moisture in the soil was sufficient; and the seed germinated freely. After this the season was unusually dry and irrigation was resorted to on a large scale. November and December were entirely rainless and were followed by severe frost. The rain in the last week of January was pretty general and greatly benefited the unirrigated crop. February and March were also practically rainless and the crop was gathered without any mishap, though in the western divisions whiteants, frost, and dry west winds caused some damage.

In Bengal the rainfall in September was general and plentiful, but it was seriously deficient in October, there being practically no rain in south Bihar and Chota Nagpur. The fall in the subsequent months was markedly deficient in Bihar, and in a lesser degree elsewhere. On the whole the season was unfavourable to the wheat crop.

In the Central Provinces the monsoon rainfall was favourable for the preparation of land, but there was a marked difference in the conditions at sowing time between the north and the south of the province. In the south the monsoon ceased extraordinarily early in September, and consequently the area sown was contracted, whilst the early growth of the plants was stunted. Prospects were gloomy, but were much improved by some good cold weather showers. In the north the season was throughout favourable owing to the late monsoon rainfall and an exceptionally heavy fall at the end of October. Consequently the area sown showed a substantial increase. The cold weather showers were also exceptionally good and beneficial. Since then conditions continued to be favourable, but frost did some damage in the northern and plateau districts, whilst the drought continued in most of the southern districts. In the northern districts the crop was the best reaped during the past ten years, and, but for some damage by frost and insects, would have been a heavy bumper crop.

In Berar the area was contracted owing to the repeated failure of the late rains during the past few years which made cultivators fear to reserve much land for winter sowings. The rainfall during the year was up to the average, and the most marked feature of the season was the exceptionally good showers in November and December which greatly benefited the

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growth of the plants, and raised the yield considerably above that of the previous year, and more than equalled the average of the last five years.

In Bombay the season was very good in Gujarat; in the Deccan and Karnátak the crop was somewhat damaged by heavy rain in December, and in Sind it suffered from a poor inundation. For the province generally the season was above the average. The monsoon was late, beginning in the second week of July. Some of the early crops were lost and had to be resown. August rain was sufficient and September rain was very good. The October rain was below the average, but in November heavy widespread rain was of great benefit to the young crop. An unusually heavy fall in December injured the crop in places.

In the Nizam's Territory the area was contracted, but the outturn was satisfactory.

In Rajputana there was a substantial increase in both area and yield. In Central India the area did not reach the figures of last year which showed a large increase over those of the year previous and the quinquennial average, but the yield was as good or better.

In Mysore both area and yield were substantially larger than those of the preceding year and the average.

1903-04

In the Panjab the conditions at sowing time were distinctly favourable. The winter rains began in the last week of December when fair to good rain was received in all except the south-western and south-eastern districts. Light rain fell in all districts except those of the Delhi division in the first week of January. This was followed by a general fall in the middle of the month. The opportunity was seized for making supplementary late sowings in the north and central Panjab. The next rain came just at the right moment in the first week of March, the fall being general and much above the normal, and an excellent outturn of grain was assured. Useful showers fell in the fourth week of March in the western, south-western, and submontane districts. April was dry and remarkably free from those hailstorms which so frequently damage the ripening corn, and the weather conditions were equally fortunate for harvesting operations. The crop was distinctly a bumper one and the straw was as good as the grain. A serious misfortune which calls for special notice is the particularly virulent outbreak of plague which visited the new Jhelum colony. In consequence of this a large proportion of the new settlers fled to their old homes, abandoning a large area of splendid wheat which was left to rot on the ground.

In the North-West Frontier Province copious and well distributed monsoon rains facilitated the preparation of an unusually large area for wheat sowings. But the next three months were practically rainless. Much of the unirrigated land therefore remained unsown, and part of what was sown failed to germinate for want of moisture. Heavy rain, however, fell everywhere from the last week of December to the end of January and altered the situation completely. The cultivators were thus enabled to make extensive sowings on unirrigated lands during January. February was fair and favourable for growth. Heavy and opportune rain was received in all districts throughout March and an unusually large proportion of an unusually large area was brought to maturity. The yield all round was said to be the best within living memory.

In the United Provinces of Agra and Oudh the land which had been prepared for sowing was either scoured or beaten down by the heavy and continuous rain, which marked the close of the monsoon, so that much of the value of the early tillage was lost; there was not time to do the lost tillage over again and the crop was sown rather late, with inferior tillage and excessive moisture in the ground. From sowing time onwards, however, the season was, on the whole, remarkably favourable, the deficiency of the winter rains being largely made up by artificial irrigation. The cloudy weather at the end of February and the beginning of March induced a rapid spread of rust, but it came too late to do serious harm. The quality of the grain was good except in a few localities where the crop suffered from drought or strong winds.

In Bengal the heavy rains in October favoured the retention of moisture by the soil during the wheat-growing season. In November light showers were obtained all over the province, except in Bihar, where the bulk of the wheat crop is raised. December was practically rainless, but the crop in Bihar was much benefited by the January rains. In February the rainfall was more general and copious. On the whole, the season was generally favourable.

In the Central Provinces and Berar an extended area was sown with wheat. In Berar and the Nagpur country the increase was largely due to the failure of jawar caused by excessive rains. In the rest of the Central Provinces the good crop of last year and general recovery from the effects of the famines were the principal causes of the increase. The crop was affected by the absence of winter rains. The heavy rain which fell at the end of February and the beginning of March and which was in some localities accompanied by severe hailstorms caused further deterioration, especially in the Berar districts. This deficiency in the weather conditions was, however, made up by the increased area sown.

In Bombay there was an appreciable diminution below last year's area in Ahmadabad, Dharwar, and Poona owing to the extended cultivation of cotton, and of jawar and other food crops. But in most districts the area under wheat increased owing to favourable rains at sowing time in the Presidency proper and to a plentiful water-supply in Sind. The season was good in Sind and Gujarat. In the Deccan the crop suffered from deficiency of moisture, particularly in parts of Nasik, Ahmadnagar, Poona, and Sholapur, and from locusts and rats in places. In the Karnátak late rains were excessive and much damage was done by rust. For the province generally the season was fairly good.

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In the Nizam's Territory an increased area was sown, and a very good crop harvested, although damage was done by heavy rains in places.

In Rajputana both area and yield showed a very marked increase over the preceding year.

In Central India both area and yield increased substantially over the figures of the preceding year and the average.

In Mysore also both area and yield was substantially larger than those of the preceding year and the average.

COTTON

1891-92

In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July when rain was excessive. These conditions and locusts caused injury to both the early sowings and the late crop.

In the United Provinces of Agra and Oudh the weather conditions were the same as in the Panjab, with a worse result.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low land.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnátak. In Sind the overflow of the Indus was also late and irregular.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it.

1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the United Provinces of Agra and Oudh.

In the Central Provinces excessive and injurious rain fell in September and October.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

1893-94

In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the United Provinces of Agra and Oudh continued heavy rain from July to October, and strong winds retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency proper and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious, but on the whole very beneficial.

In the United Provinces, on the other hand, the area was slightly below the average and heavy rain and stormy winds in October and November reduced the yield.

In Bengal, owing to excessive rain, the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

COTTON

In the Central Provinces and Berar the rains were heavy and injured the standing crop.

In Bombay the rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with the early and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains.

1895-96

In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that on irrigated land the crop was good, but poor on land dependent entirely on rain.

In the United Provinces of Agra and Oudh the rains were generally favourable to the crop, weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season preved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of reasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton. The area sown with the late crop was also below the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year. In Sind there was a deficiency of water.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which was inadequate and the crop was bad.

In the United Provinces of Agra and Oudh there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop especially on unirrigated lands.

In Bengal the season was unfavourable, and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In the Nizam's Territory a restricted area was sown, and the crop was poor.

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the United Provinces of Agra and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season, though a little late, was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing *Northern* and *Western* varieties, but the lateness of the monsoon contracted the area in places where Tinnevelly and Salem cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In the Nizam's Territory the area sown was large, but owing to an unfavourable season, the yield was bad.

1898-99

In the Panjab the rainfall at sowing time was scanty, in August it was irregular and deficient, but favourable showers in September did much to develope and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted.

In the United Provinces of Agra and Oudh the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop.

In Bengal the season was unfavourable owing to the uneven character of the monsoon.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn.

In Berar dry weather in October and the failure of the late rains had a bad effect, but the yield was good.

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In the Nizam's Territory the monsoon was late at the commencement of the season, and though prospects were improved by rain in August and September, the yield was bad.

In Rajputana the season was on the whole unfavourable owing to insufficient rain; in Central India the crop did well.

1899-1900

In the Panjab the prospects of the crop were generally hopeful in the beginning of the season, and sufficient rain at sowing time and a good supply of canal water induced cultivators to sow an extensive area, a large proportion being on land irrigated by canals and wells. But with the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the United Provinces of Agra and Oudh excessive rain in June and July interfered with sowings and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was almost entirely lost.

In Bengal, in the early part of the season, the rainfall was irregularly distributed, and later it was on the whole inadequate, and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain, but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places, and where it survived gave a very poor yield. In Sind the water-supply was deficient and the yield poor.

In Madras the season was, on the whole, unfavourable and the yield very poor.

In the Nizam's Territory the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the United Provinces of Agra and Oudh the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received throughout the provinces, and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

In Bengal the rain in July was, on the whole, well distributed and fairly continuous. In August it was irregularly distributed and more or less in defect everywhere. Much more copious and general rain fell in September, but in October it was deficient in most places. The season was, on the whole, unfavourable to early cotton, though fairly favourable to the late cotton except at sowing time.

COTTON

In the Central Provinces, in consequence of the relative cheapness of cotton seed, favourable conditions at sowing time, and good prices, a very extensive area was sown. The distribution of the rainfall left something to be desired. In some parts the plants were swamped by the heavy and continuous rain of August and September, especially in the richer soils and in low-lying positions. Heavy rain in September also injured the flowers, and the absence of rain in October affected the crop in poor soils and high-lying fields, and owing to insufficient moisture the bolls withered before maturity.

In Berar the area under cotton was the largest known. The monsoon rainfall was better than for many years past. The early rains were somewhat deferred and sowings were later than usual, but the fall in June and July was normal; August was very wet and in September also the fall was excessive; but the rains closed abruptly at the end of that month. The cotton crop on poor soils suffered from lack of moisture, but on all rich black soils and in low-lying lands there was a heavy crop.

In Bombay early cotton in the Deccan and late cotton elsewhere, mainly in Gujarat, covered a restricted area, early rains being deficient and not allowing full sowings. The devotion of part of the usual cotton area to food-grains consequent on the scarcity of the preceding year also accounts for some of the decrease. The crop promised well at first, but afterwards it suffered from the deficiency of the late rains.

In Madras the north-east monsoon failed in some places and the area sown was also restricted by the preference given to the cultivation of food-grains. The crop was generally fair except in the Deccan districts, where *Northerns* and *Westerns* were affected by disease and want of rain.

In the Nizam's Territory with good rain at the sowing season for early cotton a large area was brought under cultivation, but late cotton did not receive sufficient rain; and in the Aurangabad division, which has the largest cotton area in the territory, the sudden cessation of the winter rains kept the crop back.

In Central India both area and yield were much in excess of the average.

In Burma heavy rains greatly injured the crop.

1901-02

In the Panjab the rainfall of May was beneficial to the crop, and the injurious effect of the long break in the rains in September and October was chiefly felt on unirrigated land. Some damage was also done by locusts, grasshoppers, and rats.

In the United Provinces of Agra and Oudh a very large area—the largest since 1894—was placed under cotton, although the rains were late, owing to the stimulus given by the high prices and the plentiful crop of the preceding year.

In Bengal the season was on the whole unfavourable by reason of deficient rain for the cotton crop, both early and late.

In the Central Provinces the germination of the crop, which was not sown under favourable conditions, was unequal, and a long break of the rains in the first-half of July necessitated resowings to some extent in most of the important cotton-growing districts. Excessive rain in August did some injury which was not altogether made good by a timely break in the second-half of September. Owing to the absence of rain after September, and the ravages of insects in October, the prospects of the crop materially deteriorated.

In Berar the monsoon rainfall was unusually heavy and continuous. It was not until the beginning of September that a break of any duration occurred and the crop then was suffering from excessive moisture; but three weeks of fine weather followed by timely showers brightened prospects considerably; and the clear cold weather of November and December brought the crop rapidly to maturity. Rats, however, caused much injury.

In Bombay there was some increase in the area sown with early and late cotton in the British districts of Gujarat and the Deccan, and in Baroda and other Gujarat States, owing to favourable early rains, but not enough to compensate for the large decline in Káthiáwár and Cutch and in the Karnátak districts, which resulted from the deficiency of rain at the sowing season. In Sind there was a small increase due to a better water-supply. In Gujarat the season began well, but the crop made little progress owing to the failure of the late rains. Afterwards locusts and rats materially injured the surviving crops.

In Madras the condition and prospects of the crop were, on the whole, fair, and unusually late rain in the Deccan districts considerably improved prospects there. On the other hand, late and subsequently very heavy rain retarded sowings in the south; both the area and the yield were, on the whole, below the average.

In the Nizam's Territory the rains were, on the whole, favourable.

In Central India and Rajputana the crop was good.

In Burma the season was not favourable owing to want of rain.

1902-03

In the Panjab, owing to deficient rainfall in February and March, unirrigated cotton sowings contracted. The deficiency of rainfall, however, stimulated cultivation with the aid of irrigation. The rainfall of June was favourable for late sowings on unirrigated lands. The break in the rains towards the close of July and August marred the prospects a good deal and the flowers did not form well. September rains, however, improved the crop very much, but the flowers that formed then were late and the cold of the last few weeks checked further development.

In the North-West Frontier Province timely rainfall from March to June stimulated sowings and proved exceedingly beneficial to the young plants, and the seasonable rains of July, August, and September enabled further sowings to be made. The crop was fairly average.

In the United Provinces of Agra and Oudh the rains set in during the first week of July and continued with little break to its close. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the provinces. The rainfall of September was heavy, and that of October insufficient and unevenly distributed. Owing to a succession of seasons of light rainfall which generally tends to the success of this crop, the cultivation of cotton extended. Prospects, however, deteriorated, afterwards. In places the flowers fell off without bearing bolls, while in others the full development of the bolls was checked. Damage was also reported in places from high winds and insects. The irrigated early crop escaped serious injury, but the unirrigated late crop suffered severely.

In Bengal owing to insufficient and ill-distributed rainfall the season was anything but favourable to the early crop. For the late crop also the season was not favourable owing to deficient rain.

In the Central Provinces, sowings, though late, were successful over an exceptionally large area. Germination was good, the weather was favourable for weeding, and the plants thrived. Conditions then pointed to a bumper crop. Since then the season was not so favourable. In the northern districts heavy rain in October and November did considerable damage just when the plants were in flower, and in the southern districts, the plants suffered in their later stages of growth from drought accompanied by cloudy weather, which caused the withering of immature bolls. Damage was also caused by insects. The season did not thus fulfil its early promise of being an exceptionally favourable one, but it was still about the average.

In Berar the exceptionally good crops of the preceding two seasons and the favourable market prices influenced the cultivators to sow cotton extensively. The monsoon rains commenced unusually late and there was an extensive break in August which caused some anxiety; subsequently the rainfall was light but timely, and prospects were brilliant. Unfortunately heavy rain fell in November when the first pickings were being gathered, causing considerable damage to the ripe cotton, and in some districts knocking ripening bolls off the plants; this largely discounted the favourable estimates previously made. But, although the late rains damaged the crop that had reached maturity, a heavier yield than usual was gathered from the later pickings.

In Bombay the area contracted mainly in the British districts of Gujarat and the Deccan, where the opening rains came much later than usual. In the Gujarat States, however, there was a considerable extension in area which made up part of the deficit elsewhere. Though the crop suffered in places from excessive rain and cold at the time of the opening of the bolls, the season was distinctly favourable.

In Madras an extended area was sown owing to good and timely rainfall; and the condition of the crop was reported to be generally good.

In the Nizam's Territory the crop was unfavourably affected in the Mahratwara districts, where most of the cotton is grown, by cloudy weather and untimely rain that fell when the cotton capsules were growing, and in Bidar the capsules fell off in parts.

In Rajputana and Central India the area exceeded the average and the crop was excellent.

In Burma also the crop was very good.

1903-04

In the Panjab, the late spring rains were favourable for sowing throughout the central and north Panjab, with the result that the increase in the area sown in these parts of the province more than compensated for the deficiency in the Delhi division due to the late arrival of the monsoon rains. The outturn was also considerably below the average in the dry area of the Delhi division. Taking the rest of the province as a whole, the late rains caused late flowering, and excessive rains in some districts was also prejudicial to the yield. A few districts also reported high winds at flowering time. But conditions were fairly satisfactory in the most important districts of the province.

In the North-West Frontier Province the heavy rainfall of March afforded sufficient moisture for cotton sowings. The rainfall of May helped on the crop and that of July improved prospects.

In the United Provinces of Agra and Oudh, a relatively small area was sown owing to the late arrival of the monsoon. The decrease was general, being greatest in the three cotton-growing divisions of Meerut, Agra, and Allahabad. The rainfall was favourable up to the end of September, when the crop, though backward, was doing fairly well. The excessive rain in the first fortnight of October and the strong winds that prevailed changed the whole prospect. In a few western districts, which escaped the full severity of the storm, the crop was comparatively good; elsewhere it was little more than half the normal.

In Bengal the defective rainfall in the early part of the season was, on the whole, favourable to the early cotton crop, except where the rainfall was altogether insufficient in May. In the flowering season, that is, in September and October, the rainfall was generally in excess, and consequently the production was low in most districts. For the late crop also the season was not altogether favourable as the rainfall was generally insufficient.

In the Central Provinces the crop was put down under favourable conditions. Germination was good and very little resowing was necessary. But the rainfall during August and September was exceptionally heavy and continuous. Weeding operations were in consequence retarded, and the growth of the plants was checked, while the continuance of rainy weather in

COTTON

October prevented this injury being repaired. In Nimar, Chhindwara, Wardha, and Nagpur, where cotton cultivation is really extensive and important, the rains did not cease till the second week of October, with the result that the damage from excessive moisture increased. Some damage was also caused by grasshoppers in parts of Nimar and Chhindwara. The prospects of the crop therefore materially deteriorated.

In Berar favourable seasons and good prices greatly encouraged the cultivation of cotton and a record area was sown. But the damage caused by heavy rain this year was reported to be greater here than in the Central Provinces.

In Bombay (including Sind) favourable rains at sowing time extended the area sown almost everywhere. The crop progressed well at first, but later on it suffered from deficiency of moisture in North Gujarat and through its excess in the south. Injury was also caused by locusts in Gujarat and by disease in parts of the Karnátak. On the whole, however, the crop fared well everywhere.

In Madras there was an expansion of the area sown owing to good and timely rainfall. The condition of the crop was reported to be generally good.

In the Nizam's Territory the area sown showed an increase over the preceding record year; but the crop was affected by heavy rain especially in the western districts. In the southern districts where a large portion of the crop is sown late the crop was better.

In Rajputana, owing to the lateness of the sowing rains, a restricted area was sown. The crop was also damaged by locusts and high winds in places.

In Central India an extended area was sown, and the yield also was well above the preceding year, though the crop suffered considerably from rain in places.

In Burma the early rains generally were scanty, and the later rains somewhat in excess. But fortunately the destruction due to the August drought and the heavy rainfall of October extended to a limited area only and did not appreciably affect the total outturn.

In Assam the crop suffered seriously from drought in March and April. Since then the weather proved generally favourable.

In Ajmer-Merwara rains ceased early after the middle of September, and the crop was injured by locusts and cold winds.

OILSEEDS

Linseed, rape, and mustard

1891-92

In the Panjab the season was fairly good for oilseeds, and the area was the largest on record up to that year, but the yield disappointed expectation.

In the United Provinces of Agra and Oudh the season was mild and favourable to linseed and the rapeseed was free from fungoid disease: both crops, however, suffered to some extent from the lateness of the winter rains.

In Bengal the dryness of the season affected the crops, and reduced the areas considerably it most districts.

In the Central Provinces and Berar the season was on the whole favourable. In the former linseed suffered from the failure of the winter rains; while in the latter rain at sowing time was favourable, but the late rain was scanty.

In Bombay, though a large area was sown with linseed in the North Deccan, the crop was everywhere poor owing to deficient rain, and in the Karnátak it was a complete failure from drought. The rapeseed crop in Gujarat and Sind was also injured by the dryness of the season, and the yield was very deficient.

1892-93

In the Panjab where the oilseeds mature late, the winter rains were followed by a large increase in the area sown.

In the United Provinces of Agra and Oudh the expectations of a good crop were not realised owing to frost and wet weather in January and February.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was good.

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. But on the whole both linseed and rapeseed did well.

In Assam the season was favourable.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair.

In the United Provinces of Agra and Oudh the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crop suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts.

In the Central Provinces the crop promised well in the earlier months, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much good.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being good.

In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In the Nizam's Territory excessive rain caused a contraction in places of the area sown while in others timely rainfall promoted sowings.

In Assam the season was favourable for mustard.

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts.

In the United Provinces of Agra and Oudh the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was poor.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In the Nizam's Territory the winter rains injured the crop.

The area under mustard in Assam was small and the yield inferior owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite bad in the Panjab, Sind, the United Provinces of Agra and Oudh, and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95 when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northern India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other hand, was more or less contracted everywhere except in the Nizam's Territory, and the contraction was very material in the Panjab, the United Provinces of Agra and Oudh, Bombay, and Sind. The harvest, however, was good on the reduced area in the United Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a good crop.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts, but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In northern India the winter rains were timely and sufficient and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

The area sown with linseed was greatly contracted in the United Provinces of Agra and Oudh, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at sowing time. The yield was also bad especially in the Central Provinces and Berar, while in Bombay the crop almost entirely failed. In Bengal and the United Provinces of Agra and Oudh the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the United Provinces. The harvest was generally fair. The short rainfall in Assam was unfavourable for sowing mustard and the yield was affected by the absence of rain during the period of growth.

OILSEEDS

1897-98

Conditions in the Panjab, the United Provinces, and Bengal were favourable at sowing, and although the area sown was restricted, except in the Panjab where the acreage under rapeseed was increased, the yield was good.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapseed crop, however, did better in Bombay and Sind.

The mustard crop in Bengal and Assam was reduced in consequence of retarded sowings and deficient winter rains.

1898-99

In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage.

In the United Provinces of Agra and Oudh excessive moisture at sowing time and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; and injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda) in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places.

1899-1900.

In the Panjab the early cessation of the monsoon, the dry autumn months, and the lateness and deficiency of the winter rains, had the natural result of diminished sowings and restricted yield of rapeseed. In some places no yield at all was obtained, the crop having been cut when green and eaten as a vegetable by the people or given as fodder to the cattle.

In the United Provinces of Agra and Oudh excessive rain in June and July was followed by a material deficiency in August and September, and the three following months were exceptionally dry; fortunately rain fell about the middle of January and did much good to both linseed and rapeseed.

In Bengal the season was not favourable to the cultivation of oilseeds. The rainfall in the autumn months was in defect, and the want of rain was felt in many districts at the time of sowing, while an excess in others interfered with the proper germination of the seeds. The usefulness of the rain which fell in January was qualified by the injury done in some places by hail.

In Assam the late subsidence of the floods, combined with the late cessation of the rains, interfered with timely sowings, but the yield was good owing to favourable weather after the crop was sown.

In the Central Provinces, the want of moisture in the soil at sowing time, and the absence of the winter rains, told upon linseed seriously. Germination was exceedingly defective, and the plants which came up yielded but little seed.

In Berar also linseed was a disastrous failure. Even the best black soil failed to retain enough moisture to nourish the crop, and the plants withered before reaching maturity.

In Bombay linseed was a complete failure in Gujarat, no sowings being possible in consequence of the failure of the rains. In the Deccan and other parts of the Presidency, the conditions were hardly better. The rapeseed crop was also practically a complete failure, some return having been obtained only in Cutch.

In the Nizam's Territory, which is subject to climatic conditions resembling those of Berar and Bombay, linseed, rapeseed, and mustard all did very badly.

1900-01.

In the Panjab the season was most favourable for rapeseed. The monspon rains were abundant and the winter rains fall at opportune intervals, both for sowing and maturing. The area under the seed was more than double the average, and the yield very large.

In the United Provinces of Agra and Oudh the rainfall of the monsoon was abnormally heavy towards the end of the season, and the winter rains were also excessive and prolonged. The moisture in the soil was ample at the sowing season, and consequently the area sown was extended. But though the moisture permitted of the sowing of seed in a fairly large way,

the excessive and prolonged continuance of the rain and cloudy weather generated fungoid diseases, and the crop was seriously affected by them in many districts, the yield in the localities affected being hardly more than half the normal crop.

In Bengal the monsoon rains were fitful and irregular, falling in abnormal quantity towards the end of the season, while the winter rain in January and February was also much in excess of the normal. On the whole the season was unfavourable to the oilseed crops, which suffered from an excess of rain in many districts and from comparative drought in others.

In Assam the mustard crop suffered in most districts from the absence of rain during the period of growth.

In the Central Provinces the continuous rain during August and September interfered with the preparation of land, whilst the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and except in Nagpur, prospects were favourable until the continued cloud and rain in January and February induced rust which caused great injury. The unfavourable conditions after January told seriously upon linseed.

In Berar the area sown with linseed was far below the average. After the year of famine during which both food-stocks and credit were exhausted, the general inclination of the cultivators was to obtain as early a crop as possible, and larger areas were devoted to the autumn crops, notably jawar and cotton. The monsoon rainfall was in excess of the average, but the ground had been so thoroughly parched by the failure of the rains of 1899 that the moisture was rapidly absorbed and was inadequate for the successful growth of linseed. No rain fell after sowings had been completed, the rain of January came too late to be of any material benefit, and the yield was poor.

In Bombay linseed is mostly grown in the Deccan and Karnátak, and in both tracts the crop suffered so greatly from the absence of moisture owing to scanty rain as to be an almost complete failure. Rapeseed did better in Gujarat; but this crop is of much more importance in Sind where the area sown was in excess of the average and a fair yield was harvested.

In the Nizam's Territory an extensive area, not materially smaller than the average, was placed under linseed, but the conditions of the season were unfavourable, as in Berar.

1901-02

In the Panjab the monsoon rain ceased early and was not as abundant as usual. The winter rains failed entirely, and high winds and severe frosts in February proved detrimental to the crop, which was only saved from destruction in some places by slight showers in March. Owing to the absence of rain in the sowing season, a very small area was sown with oilseeds, while sources of artificial irrigation were devoted chiefly to superior crops. The crop on unirrigated lands gave extremely poor results generally and failed entirely in several localities. On irrigated lands also the crop was below the average.

In the North-West Frontier Province, as in the Punjab, the season was most unfavourable for rapeseed. There was a decline in the area sown owing to the failure of the winter rains and to the short supply of irrigation from canals and hill torrents.

In the United Provinces of Agra and Oudh the autumn rains in the latter half of the season were insufficient in the Meerut division, and in parts of the Agra and Rohilkhand divisions; in the rest of the provinces conditions at seed-time were less unfavourable. The winter rains were scanty, only light rain having fallen towards the close of December and the beginning of January. Linseed is generally sown after an autumn crop, and, as the soil was too dry for sowing without previous irrigation, the area sown with this seed declined largely; but the area and yield of rapeseed were larger than the average.

In Bengal the monsoon was weak, the deficiency being serious in the Bihar and Chota Nagpur divisions. On the whole, the season was unfavourable for oilseeds, especially in Bihar; and there was a decline in the area sown owing to drought in the sowing season.

In Assam the season was favourable for the mustard crop except for heavy rain at the end of November. The area sown was larger than usual, and the yield was almost equal to the average.

In the Central Provinces the absence of moisture in the soil at the sowing season and the failure of the winter rains told seriously upon the linseed crop. Germination was defective and the plants which came up yielded but little seed.

In Berar there was no winter rain, but the season was favourable for sowing, and in most localities the seed germinated freely and prospects were good; but considerable injury was done by rats, and these prospects were not realised.

In Bombay the absence of moisture severely injured the linseed crop, and its ruin was completed by rats, which destroyed nine-tenths of the crop in Khandesh. As regards rapeseed, the conditions in Sind where the crop is mostly grown were fairly good, but in Gujarat the crop was almost a complete failure by reason of drought and the destructive activity of rats.

In the Nizam's Territory the area was slightly smaller than the preceding year, but a little larger than the average. The yield was smaller than the average owing to the unfavourable character of the latter part of the monsoon.

1902-03

In the Panjab the late continuance of the monsoon was favourable for sowings, and an extensive area was sown; but the failure of the winter rains caused wide-spread injury, and though good rain fell from March 10th onwards, this was too late to benefit rapeseed to any considerable extent. Insects also did great harm in places.

OILSEEDS

In the North-West Frontier Province the season was on the whole favourable for the rapeseed crop. But considerable injury was done to the crop in Hazara and Kohat by heavy rains at harvest time which blackened the stalk and damaged the seed.

In the United Provinces of Agra and Oudh the autumn rains were seasonable and there was sufficient moisture in the ground when the linseed and rapeseed crops were sown. November and December were entirely rainless and were followed by severe frost. The first winter rains in the last week of January generally benefited the crops. After that there was practically no rain. As in the case of wheat the dry season was very favourable to the oilseed crops, though in some districts in the west slight damage was reported from frosts and hot west winds.

In Bengal the monsoon rains were generally plentiful, but terminated abruptly in September. In that month there was good rain in Bihar and Chota Nagpur; in north Bengal the fall was greatly in excess of the normal, while elsewhere it was, on the whole, slightly in defect. October was unusually dry, and the following two months were practically rainless. The drought continued through January in Bihar and east Bengal, while elsewhere there were seasonable showers. General but scanty rain in February slightly benefited the crops. There was, however, very little rain during the next two months, except in a few districts of east Bengal, and on the whole the season was not favourable.

In Assam, the partial loss of the rice crop caused by floods induced people to sow mustard more largely than usual. But for want of rain during the season of growth and other unfavourable causes, the character of the crop was much below the average in many districts. The increased area sown, however, made up for the poor outturn of the crop.

In the Central Provinces the early cessation of the monsoon rainfall contracted sowings; germination was defective for want of moisture, and the crop which came up suffered from the continued drought. In the northern districts, where conditions were not unfavourable at sowing time, some damage was caused by frost and insects.

In Berar the decrease in the area sown was attributed to the repeated failure of the late rains during past years, which induced cultivators to allot more land under monsoon (*kharif*) crops. There were good showers in November and December which improved the outturn.

In Bombay there was a decline in the area sown with linseed in the Deccan and Karnátak which was attributed to extended cultivation under autumn crops as a result of the unfavourable winter seasons of past years, and the crop was affected by rust and disease in places owing to excessive rain, and also from want of sufficient moisture. In Gujarat the crop was fairly good. As regards rapeseed, the crop in Gujarat suffered slightly from frost in Baroda; elsewhere it was fair. In Sind there was a decrease in area owing to low inundation; but the condition of the crop was fair.

In the Nizam's Territory there was a temporary withholding of the rains at the commencement of the season, but the conditions afterwards turned very favourable.

1903-04

In the Panjab owing to favourable conditions at sowing time an exceptionally large area was placed under rapeseed. The failure of the winter rains in the south-eastern districts seriously affected the crop. In all other districts conditions were favourable throughout; an the crop on the whole was a bumper one.

In the North-West Frontier Province conditions were unfavourable for sowing, except in Dera Ismail Khan where hill torrent irrigation was unusually favourable and allowed of an exceptionally large area being sown. A few showers fell in the first week of November, but the period from 8th November to 23rd December was absolutely dry. The general rain at the end of December and in January, however, altered the situation for the better. The rains during the subsequent months were ample and well distributed, and the crop came to maturity in an unusually good condition.

In the United Provinces of Agra and Oudh the rain in August and September was seasonable but abnormally heavy storms in October affected nearly the whole of the province. Moisture was therefore excessive and in some places the crops were sown late. Linseed is generally sown after an autumn crop, and as moisture was ample a very large area was devoted to its cultivation this year. The area under rapeseed, however, slightly fell off. November and December were dry; but light rain in the middle of January greatly benefited the crops. In some districts in the eastern half of the province linseed was attacked by an insect pest, but the damage done was not serious.

In Bengal the heavy rainfall of October was on the whole beneficial to winter oilseeds, though it was reported to have injuriously affected the crops in some districts. There were light showers in November, except in the Patna and Bhagalpur divisions, where owing to want of rain in November and December, the crops suffered. Throughout Bihar and North Bengal, however, light showers were obtained in January, and in February the showers throughout the province were fairly copious. March and April were practically rainless and this facilitated harvest operations. On the whole therefore the season was favourable.

In Assam the season was not altogether favourable to the mustard crop. In the Surma Valley and parts of Lower and Central Assam, cultivation was to some extent impeded by heavy rain and consequent floods at the commencement of the sowing season. Want of rain was subsequently felt over the greater part of the mustard-growing area.

In the Central Provinces and Berar, sowings, though somewhat late owing to the heavy and continuous rainfall during August and September, were successful over increased areas in

the important linseed-growing districts. But the absence of the winter rains and the unfavourable conditions during the end of February and the beginning of March told seriously upon the crop. The cloudy weather which preceded the February rain caused the flowers to wither before the seed was set, and also favoured insects which damaged the crop considerably in some districts.

In Bombay a very extensive area was sown with linseed. The increase was due to larger sowings of wheat and jawar with which the oilseed is sown mixed. The crop was fairly good everywhere, though excessive late rains induced disease and rust in places. As regards rapeseed, in Gujarat there was a decrease in area as well as in yield owing to deficient late rains. In Sind the inundation was favourable and the outturn good.

In the Nizam's Territory owing to excessive rain autumn sowings suffered considerably and winter sowings had to be suspended. Nevertheless, the area placed under both linseed and mustard was much larger than in the preceding year. Severe cold and insects, however, injured the crops in places.

Sesamum (til or jinjili)

1891-92

In the Panjab the season was decidedly unfavourable, the late arrival of the monsoon causing a reduction in the area sown. The crop was damaged by locusts, and the yield was very poor.

In the United Provinces of Agra and Oudh, the monsoon rain was quite abnormal, light in the beginning, but excessive at the latter end of the season. The area and yield were both small.

In the Central Provinces the season was unfavourable and sowings were greatly restricted. The crop was very poor.

In Berar excessive rain and insects injured the crop, though its condition was favourable in some districts owing to sufficient and seasonable rain.

In Bombay the rain at sowing time was favourable, but the growing crop suffered from drought as well as from excess of moisture in places. In Sind a low inundation and locusts affected both area and yield.

In Madras the area and yield were reduced by the unfavourable character of the season.

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July, stimulating sowing. The yield was very good.

In the United Provinces of Agra and Oudh sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop.

In Berar unfavourable rain and the rotation of crops caused a decrease in the area sown. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In Bombay there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was better than in the preceding year. In Sind the harvest was bad.

In Madras, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the sown area; but the yield was small.

In the United and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the United than in the Central Provinces.

In Berar the early sowings were impeded by deficient, and the latter sowings by excessive, rainfall; and excess of rain in September injured prospects.

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was not good. In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop good.

In the Nizam's Territory the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield.

OILSEEDS

In the United and Central Provinces the season began well, but injury was afterwards done by excessive rains, epecially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the United Provinces the loss occasioned by the rains was considerable.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower, and the yield was generally poor.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was deficient owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower. In Sind with favourable rain and extensive inundation the yield was fairly good.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The early cessation of the north-east monsoon rainfall restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was very poor.

1895-96

In the Panjab the rainfall was unfavourable, and the crop on the whole was poor.

In the United Provinces of Agra and Oudh the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, but the season became adverse later by reason of deficient rain and the abnormal heat which prevailed to the end of November.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was bad.

In Bombay a large area was sown, the rainfall being seasonable, but the crops, both early and late, suffered from want of moisture. In Sind scanty rain and a low inundation curtailed the area, and the young crop suffered from want of moisture.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average, on account of the excessive sowing of the early crop. Rain was too heavy in some places, while it was deficient in others, and the yield from both crops was bad.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor.

In the United Provinces of Agra and Oudh the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands.

In the Central Provinces the area sown was large, but the crop generally fared bad except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly.

In Bombay, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended from timely rain. The former crop suffered severely from drought, and the result was a poor yield. The latter did not suffer so much.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food-crops accounted for a contraction of the area sown in most provinces.

The yield varied greatly from about an average crop in Bombay, the United Provinces, and the Panjab, to greatly below the average in Madras, Sind, and the Nizam's Territory.

In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the United Provinces of Agra and Oudh the area sown was restricted, and excessive rain towards the latter part of the season deteriorated prospects.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time.

In Berar sowings were made under favourable seasonal conditions, and, though the crop was injured by the failure of the late rains, the yield was large.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere, which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was large.

In Madras the season was favourable for the late crop, and it grew in good conditions on an extended area. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded a poor crop.

1899-1900

In the Panjab the season opened very well, but became more unfavourable as the months passed, and the yield was small.

In the United Provinces of Agra and Oudh the excessive rainfall in the beginning of the season gave rise to apprehensions regarding the prospects of the crop, and later the crop was damaged by continued drought in the Meerut, Agra, and Rohilkhand divisions, where, however *til* is not extensively sown. In the tracts in which the cultivation of *til* is important the moderate rainfall of August and September proved very beneficial and the yield there was good.

In Bengal on the whole the season was good enough, though the rains were irregular, excessive in some places, and insufficient in others; and the yield was larger than the average.

In the Central Provinces the season favoured sowing operations, but it did not continue favourable, and the abnormal heat of November did much injury. The early crop was fairly successful, but the cold weather *til* in many places began to wither when on the point of maturity.

In Berar the crops withered under the drought and the excessive heat which followed.

In Bombay the early rains were scanty and the later rains failed entirely. Owing to the extremely unfavourable nature of the season the crop withered away in many places, and where it survived gave the poorest yield.

In Madras the area sown was restricted, the south-west monsoon being unfavourable in most places, and the yield was not good.

In the Nizam's Territory the rains failed, and the crop withered under the drought which followed some good rain in September.

1900-01

In the Panjab the area sown was much below the average, heavy floods in some districts restricting sowings.

In the United Provinces of Agra and Oudh the monsoon began late and was generally scanty and unevenly distributed until the third week of August. Then and in September, excellent rain fell, and its distribution was all that could be desired, especially in Bundelkhand, which ordinarily contains four-fifths of the whole area under sesamum. Except for heavy falls in Benares and Gorakhpur in the second week of October, the weather during that month and November was clear and seasonable.

In Bengal the monsoon rainfall was capricious and irregular, and, on the whole, the season was not favourable for oilseeds, which suffered from an excess of rain in any tracts, while in others they suffered from drought.

In the Central Provinces the conditions at the time of sowing, both of the early and late varieties, were generally favourable and a large area was sown. Sesamum is a cheap crop to sow, and it resists drought better than most crops. The difficulty of obtaining the relatively expensive seed of wheat and other spring crops stimulated its cultivation. The early crop suffered somewhat from the heavy rain at the close of August and during September. The germination of the late sown crop, which is more extensively grown in the south of the provinces also was irregular, heavy rain just after sowing having washed away part of the seed. Drought during October and November, abnormal heat, and insects, following on cloudy weather, also injured the crop. In consequence the yield was smaller than the normal.

In Berar the rains at sowing time and the monsoon rains were favourable; there was no prolonged break, and the crop developed well under congenial climatic conditions.

In Bombay the conditions were good in Káthiáwár at the time of sowing, and double the average area was sown, the increase there and in Gujarat more than making up for the contraction in other parts of the Presidency caused by the preference of cultivators for the cultivation of food-grains.

In Madras the conditions were not good, and though a large area was sown the crop was deficient.

In the Nizam's Territory a few seasonable showers in January, which were badly needed, improved prospects.

1901-02

In the Panjab and the North-West Frontier Province the rainfall at sowing time was unevenly distributed, being excessive in some districts and insufficient in others. The yield was below the average owing chiefly to the early cessation of the monsoon rains.

OILSEEDS

In the United Provinces of Agra and Oudh rain commenced late, about the 10th of July; the weather in August was favourable and the rainfall above the normal in most districts; a break of about three weeks ensued early in September; but at the end of the month heavy rain was received in the greater part of the province. The rainfall of October was deficient. November was practically rainless. Sowings were late, the drought in September retarded growth, and deficient rain in October caused further injury.

In Bengal there was no rain in December and January, and the winter crop suffered severely in consequence. A very restricted area was sown owing to drought at sowing time.

In the Central Provinces the rainfall was very unfavourable. The early sown variety suffered, especially in the north, from excessive rain, the crop being washed out in places while weeding was retarded or altogether prevented. The conditions were still more unfavourable for the late sown crop, which is put down at the end of August or during the first week of September. Continuous rain at this time interfered with sowings and much of the seed sown was washed out by heavy showers. Germination was very defective and many fields were ploughed up and devoted to other crops. A prolonged break subsequently occurred during which the young plants that germinated languished from want of proper moisture, and some injury was also caused by insects.

In Berar the monsoon rains were heavier than usual and the crop suffered from excessive moisture; during July and August the rainfall was almost continuous, and weeding operations were rendered impossible. Rats and locusts also attacked and injured the crop.

In Bombay the increase in the area sown in parts of Gujarat and Karnátak, due to favourable rains for sowing, was not sufficient to counterbalance the large decrease elsewhere, resulting mainly from the scantiness of sowing rains in the Presidency proper and to a low inundation in Sind. In Gujarat the season was very unfavourable owing to the failure of the late rains, while rats and locusts did some injury in places. In the north Deccan, too, the crop suffered to some extent from the same causes, while in Sind it was affected by a deficient water-supply.

In Madras in the Circars, the Deccan districts, and the west coast the sowings were about up to the average, but owing to the unfavourable season they were very deficient elsewhere, especially in the Carnatic.

In the Nizam's Territory the area was above but the yield below the average, the late rains having been unfavourable.

1902-03

In the Panjab there was an increase in the area sown owing to seasonable rainfall and the low floods in the riverain tracts which facilitated cultivation in lands usually inundated. In Ferozepore, Montgomery, and Jhang however there was a marked falling off owing to deficient moisture at the time of sowing. The outturn was good in Gujarat, Lahore, and Ambala. Elsewhere it was only average or below average owing to a break in the rains of July and August. The crop was also attacked by insects in places.

In the North-West Frontier Province the crop was above the average, both as regards area and outturn.

In the United Provinces of Agra and Oudh the rains set in rather late in the first week of July and continued till the close of the month. In the first and the last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the provinces. The rainfall of September was almost uniformly excellent. Light but insufficient rain was also received in October in most districts, November was entirely rainless. The season of light rainfall was in general favourable to the sesamum crop.

In Bengal the monsoon rains ceased early and the drought continued through January in Bihar and east Bengal, while outside that area there were seasonable showers in all the chief oilseeds-growing districts except Murshidabad. There was general and beneficial rain in February and March, but, on the whole, the season was not favourable.

In the Central Provinces the monsoon though late was favourable both for the sowing and the growth of the early variety. The late variety was sown under fairly favourable conditions and germination was good. But afterwards conditions were less favourable and there was some deterioration.

In Berar the rains began late and sowings were undertaken later than usual, but subsequently the season was favourable. Although the rainfall in the province generaly was below the average, the showers were timely, and the crop was in a thriving condition. Unfortunately when harvest operations commenced at the end of October the weather again turned wet and considerable damage was done to the crop.

In Bombay the monsoon broke much later than usual and did not permit full sowings of the early crop. For the late crop, however, the season was favourable and extensive sowings made up the deficit under the early crop. Though the crop suffered at first a little by a prolonged break in the middle of the season and latter on the reaped and ripe crop was somewhat damaged by excessive rain, the season on the whole was favourable. The area and outturn were both deficient in Sind.

In Madras owing to seasonable rainfall an extended area was sown, and the condition of the crop was generally fair.

In the Nizam's Territory the crop was unfavourably affected in places, but nevertheless the total yield was the largest recorded in the Territory.

1903-04

In Bombay owing to favourable sowing rains an extended area was placed under sesamum especially in the Gujarat States. Though the crop suffered in parts of Gujarat from locusts, in

the east Deccan from deficiency of moisture, in the Karnátak and Konkan from excessive rain, and in Sind from blight and insects, the season on the whole was fairly satisfactory.

In Madras the rainfall at sowing time was seasonable, and the condition of the crop generally fair.

In the Central Provinces the rainfall during August and September was exceptionally heavy and continuous. This interfered with weeding operations and the growth of the early sown crop, besides impeding the sowings and germination of the late variety. Heavy showers in October considerably damaged the young plants, some fields being ploughed up, and materially deteriorated the prospects of the crop.

In Berar the damage caused by heavy rain was greater than in the Central Provinces.

In Bengal the season was on the whole favourable, though the crop was injuriously affected by the heavy rain of October in some districts and by the want of rain in November and December in some others.

In the United Provinces of Agra and Oudh the crop at first suffered somewhat from the heavy rain of August and September, but the damage caused by the excessive rain of October and the strong winds that accompanied it was great.

In the Panjab damage was reported from floods and late rains, but fortunately the crop in the important districts was not much affected.

In the Nizam's Territory the crop suffered to a considerable extent owing to heavy rains, although an extended area had been brought under cultivation.

JUTE

1891 The rainfall when sowings were being made was excessive, and the area placed under the crop was smaller than in the preceding year. Germination and growth were also affected by excessive rainfall. Later, again, the want of rain was felt in several districts.

1892 Excessive rainfall injured the plant in some districts, but on the whole the season was good, and a larger area was sown under the stimulus of high prices.

1893 The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season.

1894 Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first-half of August the fall was favourable in every district.

1895 The rainfall was in excess of the normal quantity in April and the first-half of May, heavy in the second-half of May in east Bengal, and less than the average in other parts. In the next two months it was deficient, and in the first-half of August it continued deficient in central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger.

1896 Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts.

1897 On the whole the season was favourable, and there was enough water for steeping.

1898 The area sown was smaller than in 1897, owing partly to the unfavourable character of the season at sowing time and partly to the low prices of jute in 1897 and to high prices of food-grains.

JUTE

1899 The weather, though seasonable in the beginning, became extremely unfavourable towards the end of the season.

1900 There was some deficiency of rain in March and April, which prejudicially affected sowings in a few places. In May and the first fortnight of June, the rainfall was also light, but good rain later greatly improved the prospects of the crop. In July there was heavy rain in most districts, but a partial drought followed in August which, combined with a want of flood-water from the rivers, hampered steeping operations in north and east Bengal, and in a few cases diminished the yield. Fair rains fell in the first-half of September, but almost too late to have much effect on the yield.

1901 The rainfall in the earlier months of the year was almost uniformly unfavourable. In June there was heavy rain in almost all the important jute-growing districts; in July the rainfall was very irregular but not seriously deficient; the rainfall of August was again capricious, and was in considerable defect in some important jute-growing districts. There was heavy rain early in September, and thereafter it was fine and hot. On the whole, the weather was unfavourable up to the close of May, but it was exceptionally favourable afterwards.

1902 In Bengal the season was abnormal. A prolonged drought ended in the middle of March. In April and May the rainfall was excessive, especially in the Dacca and Tippera divisions. In south-eastern Bengal the weather was, therefore, very unfavourable for sowings, and to a less extent this was the case also in north-eastern Bengal. The heavy rain in May also retarded weeding. Since then the weather conditions were normal, but the prospects of the crop were not encouraging.

In Assam the weather was unfavourable at the beginning of the season, and the adverse influences persisted to the end. The crop was injured by excessive rain and flood.

1903 In Bengal rainfall was deficient at the time of sowing, but later on conditions improved owing to the favourable rainfall in August. On the whole the season was generally a favourable one.

In Assam the season was unfavourable at the beginning owing to drought in April and May, but subsequently weather conditions turned favourable, as was the case in Bengal.

INDIGO

1891-92 In Bengal the season was altogether disastrous in consequence of an unusual deficiency of rain, and although the weather was more favourable at the manufacturing season, the yield was hardly increased.

In the United Provinces of Agra and Oudh the rains commenced very late and were heavy and continuous, causing a reduction in the area sown. The excessive drought in June and July seriously tried the crop, while the continued wet weather of August prevented the proper development of dye in the leaves.

In the Panjab the late arrival of the rains, and the ravages of locusts in some places, reduced the area and the yield.

In Madras the area and yield were seriously affected by an unfavourable season.

1892-93 In Bengal the season was unfavourable at sowing time owing to deficient rain in autumn and spring; conditions improved later with favourable rain, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused injury.

In the United Provinces of Agra and Oudh the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In the Panjab a protracted drought in the early summer retarded sowings, and the area sown was very much reduced.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December.

1893-94 In Bengal the rainfall was favourable at sowing time, and a large area was sown, but heavy and incessant rain and floods caused great injury.

In the United Provinces of Agra and Oudh a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a good yield.

In Madras larger sowings were made owing mainly to timely rains.

1894-95

In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In the United Provinces of Agra and Oudh, although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second-half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In the Panjab the area sown was increased, and the crop was good.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most places.

In the United Provinces of Agra and Oudh the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In the Panjab the crop was fair.

In Madras the season was favourable in Kistna and North Arcot where a large area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The yield generally was fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the United Provinces of Agra and Oudh germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair. Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield small.

1897-98

In Bengal the area sown was small, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the United Provinces of Agra and Oudh the season was not favourable; the growth of the plants was interfered with early in the season by excessive heat and insufficient rain, and the heavy rain of July and August flooded the low lands and greatly injured the indigo growing on them.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good.

In Madras the area sown was small, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food crops.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar.

In the United Provinces of Agra and Oudh the season was not favourable. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

1899-1900

In Bengal the season in the beginning was not unfavourable, but the excessive rain which fell in June, July, and August was most injurious, and the crop was also injured in many districts by the floods which followed the excessive rain.

In the United Provinces of Agra and Oudh the crop continued in good condition until the end of June, but excessive rain fell in July and seriously injured the plant everywhere, especially in the eastern districts. The rains then fell away and drought, particularly in the Agra and Meerut divisions, added to the injury done by heavy rain.

INDIGO

In the Panjab the crop suffered from the absence of rain and the stoppage of canal irrigation in Multan and Dera Ghazi Khan. In some unirrigated tracts it failed entirely.

In Madras also the season was generally unfavourable and the yield deficient.

1900-01

In Bengal sowings and the early growth of the crop were retarded by the scanty rain of April and May. Fairly good rain in June and July was followed by an interruption in August, but prospects were improved in Bihar by abundant rain in September, which, however, was accompanied by floods and consequent injury to the crop in Lower Bengal. In October sufficient rain fell, and the season generally was much better than that of 1899. The area, however, was restricted, owing to the substitution of other crops for indigo in north Bihar under the discouragement of the comparatively low level of prices during the preceding three seasons. The yield on the whole was good in the districts of north Bihar, but very poor in Lower Bengal where, however, the cultivation of indigo is now greatly restricted.

In the United Provinces of Agra and Oudh, unlike Bengal, the area sown increased, the increase being ascribed to the temporarily improved prices in the previous season. It may be that that improvement was an inducement to native growers of indigo, while it did not remove the discouragement to European planters. In the early months of the season prospects were good, but heavy rain in the Doab towards the end of the season reduced the yield.

In the Panjab the rains were late at sowing time, but the crop did well later when the rain came down abundantly.

In Madras the high prices of food-grains induced cultivators to restrict their sowings of indigo. The crop sown was very fair on the whole.

1901-02

In Bengal the season was on the whole unfavourable. During the early months of the year the rainfall was in slight defect, but in May there was good and generally well distributed rain. The monsoon rains broke late and were deficient in June and July. There was little rain in October, and the showery weather at the end of November did not extend to north Bihar. Besides the unfavourable character of the season, the area was affected by the fall of prices resulting from the competition of synthetic indigo.

In the United Provinces of Agra and Oudh the reduction of area was proportionately much greater than in Bengal. The prospects of the crop, which had been affected by the late arrival of the monsoon, continued to be unsatisfactory until the end of August, but fine dry weather in September favoured manufacture.

In the Panjab a restricted area was sown owing to late inundation from canals in the south-western districts and the closing of factories consequent on the fall in prices. There was an insufficiency of rain and canal irrigation after the sowings, and some injury was done by locusts.

In Madras an extended area was sown in Nellore and Kistna owing to favourable weather for sowings, but almost everywhere else the cultivation of indigo continued to decline. The low prices realised, and the high prices of food-grains, are the principal reasons assigned for the decrease, but in the Carnatic, where the decrease was marked, the season was very unfavourable.

1902-03

In Bengal the season was generally very unfavourable owing to capricious and ill-distributed rainfall; and the outturn was the worst on record. The unfavourable prospects of the industry caused by the competition of synthetic indigo also contracted the area, which had been steadily diminishing in past years.

In the United Provinces of Agra and Oudh the decline in the cultivation of indigo caused by the fall in prices was very rapid and pronounced. The late commencement of the rains stunted the growth of the plant, which was further retarded in places by the continuous rain of July. The dry weather during August was, however, favourable and the produce of dye was reported to have been satisfactory.

In the Panjab the decrease in the area under indigo was almost as great as in the United Provinces, the contraction was due largely to the small margin of profit left by the fall in prices, but partly also to the insufficiency of canal water and unfavourable weather.

In Madras also the cultivation of indigo was fast declining as the low prices realised caused preference to be given to food crops and earthnut. The crop was reported to be generally good.

1903-04

In Bengal the season opened unfavourably the rainfall being very insufficient, but later good rain was received, and thenceforward the conditions were favourable.

In the United Provinces of Agra and Oudh the monsoon was unusually late in arriving, and general rain was not received till the end of the third week of July. Injury from drought was therefore reported from some places; but the rains, when they did come, were good, and the damage was much less than had been anticipated. In the Doab, where the crop was promising from the beginning, the yield was satisfactory. Elsewhere it was not so good.

In the Panjab there was an extension of cultivation due to timely running of the canals and seasonable rainfall. The condition of the crop was also good.

In Madras also owing to good and timely rainfall the cultivation of indigo showed a slight improvement, and the condition of the crop was reported to be generally good.

SUGARCANE

1899-1900

In Bengal the season was generally favourable to the crop at the beginning, but excessive rain in some parts, in August, September, and October, adversely affected prospects, while in a few places, the crop was injured by the absence of seasonable rainfall and by insects.

In the United Provinces of Agra and Oudh the season was favourable until the autumn rains set in; but the excessive rainfall of June and July seriously injured it, and further injury was caused by the scanty rainfall of the succeeding months. Slight injury from insects was also reported from several districts.

In the Panjab the unfavourable weather conditions affected even the crop grown on irrigated lands, and cane grown on unirrigated land was practically a failure. The crop was stunted in growth and deficient in juice, while owing to the great scarcity of fodder, the cane was used entirely or very largely in many districts as cattle-food.

In Madras the weather in many places was unfavourable, and some of the crop suffered from want of water, especially in the Circars.

1900-01

In Bengal the rainfall to the end of July was generally in defect; in August it was badly distributed and more or less deficient; in September it was copious and general; there was very little in October, and in November and December practically none. On the whole, the monsoon conditions were not very favourable to the crop, which also, in a few districts, suffered to some extent from insect pests.

In the United Provinces of Agra and Oudh the rains of February and March favoured sowings, and the crop germinated freely. Hot winds and afterwards insufficient rain in June and July retarded growth; but the crop was generally very healthy and promising. The rainfall was moderate in August but unusually heavy in September, and accompanied by high east winds. Floods also caused some local injury on low lands. On the whole the autumn rains greatly benefited the crop. November was rainless, but December and January were exceptionally wet; and cane-pressing was delayed in places by excessive rain.

In the Panjab the area under cane was slightly reduced, owing to dry weather at sowing time in April and May and to the fact that prices of food-grains were so high that it was more profitable to grow them than sugar on some lands. In Hoshiarpur, one of the chief cane-producing districts in the province, another reason assigned for the decline was the supersession of indigenous by imported sugar. In Sialkot it was said that a great number of cultivators emigrated with their cattle to other places owing to the dearness of food and scarcity of fodder in the previous year, and as most of the cane crop was used as fodder in the preceding year, the supply of seed was small and the price high. Although there was, on the whole, a decline in the area under cultivation, both irrigated and unirrigated, the season was far more favourable than the previous year.

In Madras early rains and an adequate supply in tanks led to increased sowings. The condition and yield of the crop were generally fair.

1901-02

In Bengal, on the whole, the season was not unfavourable, but rain was very scanty in February, March, and April, and the crop suffered from locusts and insects in a few districts. In December and January again there was a complete absence of rain. The area sown was below the normal owing to the unfavourable character of the early part of the season.

In the United Provinces of Agra and Oudh the rains of January and February 1901 were ample and germination was good, and the supply of water in the hot months was generally sufficient except in a few districts. Injury to the crop in several districts resulted from various causes—hot winds, insects, and the late arrival of the monsoon; but it was serious only in the Rohilkhand division and in parts of the Meerut division where the crop was attacked by grasshoppers. The autumn rain in July, though below the normal, was well distributed, and the rain in August was favourable and prospects improved materially, though the injury caused in the tracts mentioned could not altogether be made good. A break of about three weeks ensued early in September and the crop began to suffer, but at the end of the month heavy rain was received in the greater part of the province except the Meerut division which practically got no rain, while the falls in parts of the Agra and Rohilkhand divisions were insufficient. Some rain fell in places in October, but November and the greater part of December were rainless. The season was too dry to give a full yield of juice. In the two important cane-growing divisions of Meerut and Rohilkhand the crop was unpromising from the beginning owing to the injury caused by grasshoppers, and the drought of September and October further affected growth. In the other divisions the yield was somewhat better.

In the Panjab the area under sugarcane increased in irrigated tracts, but elsewhere there was a contraction due to scanty rain in March and April. The crop suffered from insects, locusts, and rats, and seriously from drought in September and October and the severe frost that followed. The result was so bad that in parts of Gujranwala the juice was not extracted and the cane was given as fodder to the cattle. The crop on the whole was below the average and, compared with the area, the estimated yield was disproportionately small. Another reason assigned for the decline was the supersession of indigenous by foreign sugar.

In the North-West Frontier Province the crop was on the whole above the average. Though the failure of the rain at the time of its maturing caused some decrease in the yield, the decline was more than compensated by the increased area sown.

SUGARCANE

In Madras, on the whole, a full normal area was planted. Rainfall was deficient in some places; but the yield was on the whole fair, though in the Circars the crop was far from good and in the Godavari delta disease caused material loss.

1902-03

In Bengal the season was not generally unfavourable though excessive rain at the time of planting caused some contraction of area, and damaged the young plants in parts of north and east Bengal; while a few districts in Bihar, on the other hand, suffered from drought.

In the United Provinces of Agra and Oudh the rains at sowing time—that is, February and March—were very deficient. Germination was, however, good except in the eastern districts, where later on drought and white-ants did further damage. The autumn rains commenced in the first week of July, and continued with little break to its close. The falls were general and well distributed and generally above the normal. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over the greater part of the provinces, and in places some injury from drought resulted. The rainfall in September was almost uniformly excellent. Light rain was also received in October in most districts, while November and December were entirely rainless and were followed by severe frost, which damaged the crop more or less in the western half of the province just when pressing had begun.

In the Panjab there was a decrease in the area sown in all districts except Jalandhar and Karnál owing to the absence of rain and deficient supply in the canals in February and March. The monsoon rainfall of August and September was satisfactory, but the subsequent failure of the winter rains and the severe December frost deteriorated the condition of the standing crop, and in parts of Lahore, Sialkot, and Amritsar it was used as fodder. The yield on the whole was consequently below average.

In the North-West Frontier Province the season was favourable for the sugarcane crop, and the inadequate rainfall had very little effect on this crop as it is grown exclusively on irrigated lands, and the canal irrigation on which the crop depends was satisfactory.

In Madras there was a contraction in the area owing to the shortness of water-supplies in parts at the planting season. The decrease was general and was particularly noticeable in South Arcot where it was ascribed to a fall in the prices of jaggery. The crop was reported to be generally good.

1903-04

In Bengal, owing to the drought that prevailed throughout the greater part of the province in the early part of the season, the area contracted slightly. The cane-growing and harvesting seasons from June to December were, however, favourable and gave much better results than had been anticipated at first.

In the United Provinces the rains at sowing time,—that is, February and March—were very deficient as was the case in the preceding year. The crop, however, germinated well and the supply of water for irrigation was generally sufficient. Injury from hot winds and the very late arrival of the monsoon was reported from a number of districts; but the damage done was serious only in the Rohilkhand and Benares divisions. The monsoon was unusually late in arriving and general rain did not commence till the end of the third week of July. The rainfall of August and September was very favourable to sugarcane; but abnormally heavy and continuous rain fell in the first fortnight of October in most places. November was rainless, while trifling showers fell in parts of Rohilkhand towards the end of December. The prospects of the crop somewhat deteriorated in consequence of the heavy and continuous October rain, and the strong winds which accompanied it laid the cane which flowered in places. The juice was accordingly reported to be thin and the outturn of *gur* lower than usual.

In the Panjab conditions were favourable for sowing and the monsoon rains, although somewhat delayed, were satisfactory. Excessive rain, however, caused some damage to the crop in low-lying lands, more specially in the riverain tracts of Sialkot and Amritsar. The crop also suffered from winter frosts in Ambala. In two tahsils of Guzranwala it was reported that about three-quarters of the entire crop was consumed as fodder, while in another it was damaged by insects. But nevertheless an average yield was harvested.

In the North-West Frontier Province the season was favourable throughout except in Peshawar where the matured crop suffered to a certain extent from the heavy rains in January. The canal irrigation on which the crop depends was slightly deficient in the Nowshera tahsil of that district, where owing to an aqueduct being washed away, irrigation was interrupted for six weeks.

In Madras there was a contraction in the area sown owing partly to heavy rain at sowing time, but chiefly to the fall in the price of jaggery. The condition of the crop was reported to be generally good.

Tables of Area and Yield

SUMMARY TABLE OF AREA AND PRODUCTION

			1891-92	1892-93	1893-94	1894-95	1895-96	1896-97
Rice	acres		49,539,031	48,358,707	49,525,300	50,002,241	49,396,747	48,021,462
	cwt		314,804,161	420,282,625	459,119,400	497,901,780	415,355,100	275,676,100
Wheat	acres		27,032,772	27,759,158	28,716,735	28,421,851	24,071,320	20,579,727
	tons		6,093,741	7,649,105	7,268,982	6,998,930	5,380,342	5,363,289
Cotton	acres		11,569,140	13,424,007	15,405,156	14,956,603	14,515,662	14,643,495
	bales (*a*)		2,386,276	2,318,028	2,556,537	2,239,019	2,882,042	2,651,597
Linseed	acres	pure	3,211,000	3,824,700	4,854,100	3,781,684	2,954,093	2,020,747
		mixed	545,000	604,000	503,000	603,000	560,000	345,000
	tons	pure	390,000	489,900	559,800	271,798	287,407	162,479
		mixed	97,000	94,000	65,000	53,899	82,462	58,504
Rape and mustard	acres	pure	1,175,100	3,674,900	3,676,000	3,582,181	3,004,913	2,910,682
		mixed	1,495,000	1,731,000	1,557,000	1,613,000	1,290,000	1,526,000
	tons	pure	175,272	622,580	546,216	521,031	462,064	441,814
		mixed	360,000	367,000	240,000	216,050	359,979	340,602
Sesamum	acres	pure	2,037,000	2,423,800	2,619,240	3,000,969	3,171,472	3,369,198
		mixed	551,000	407,000	509,000	448,000	560,000	672,000
	tons	pure	159,800	239,916	222,609	277,933	282,129	250,958
		mixed	32,000	40,000	50,000	40,000	55,000	45,000
Jute	acres		...	2,135,142	2,222,600	2,264,300	2,242,700	2,196,600
	bales		...	5,717,444	5,001,700	6,144,300	6,425,800	5,032,000
Indigo	acres		...	1,218,766	1,552,008	1,688,042	1,414,002	1,608,901
	cwt		...	179,056	179,437	237,494	190,924	168,673
Earthnut	acres		...	...	...	...	243,400	306,026
	tons		...	...	...	...	...	...
Sugarcane	acres		...	...	...	...	...	...
	tons		...	...	...	...	...	...

(*a*) The production in bales represents the quantities exported from India and consumed in the mills — see note (*e*) on page 36

IN EACH YEAR FROM 1891-92 TO 1903-04

1897-98	1898-99	1899-1900	1900-01	1901-02	1902-03	1903-04			
52,205,466	52,682,050	51,969,635	48,932,493	48,511,190	51,842,390	50,032,344	acres		Rice
498,350,700	505,640,600	451,553,460	413,506,700	384,294,100	469,484,800	444,143,600	cwt		
24,537,775	25,370,078	18,687,782	23,864,550	23,446,161	23,433,177	28,233,235	acres		Wheat
7,208,384	6,837,674	5,357,142	7,093,529	6,090,524	7,971,446	9,566,843	tons		
13,683,437	14,602,892	11,884,576	14,231,150	14,506,295	16,581,048	17,581,684	acres		Cotton
2,653,710	3,140,130	2,093,521	2,703,648	3,310,733	3,750,549	3,546,353	bales		
2,707,887	2,829,475	1,648,903	2,417,991	2,546,604	2,592,237	3,516,755	pure	acres	Linseed
425,000	445,000	409,000	466,000	498,000	621,000	592,000	mixed	acres	
354,994	336,610	206,220	247,024	251,803	359,568	451,658	pure	tons	
90,976	91,284	89,464	79,000	100,113	122,000	105,000	mixed	tons	
3,822,996	3,109,988	2,693,768	4,077,366	3,082,662	3,421,883	3,609,894	pure	acres	Rape and mustard
1,459,000	1,509,000	1,381,000	1,449,000	1,461,000	2,335,000	2,429,000	mixed	acres	
682,807	567,698	447,946	650,225	525,035	521,926	628,864	pure	tons	
436,451	410,983	425,471	372,000	430,617	516,000	542,000	mixed	tons	
3,662,109	3,530,625	3,316,067	4,052,491	3,711,711	4,435,648	4,744,369	pure	acres	Sesamum
584,000	713,000	517,000	622,000	611,000	717,000	747,000	mixed	acres	
355,817	348,118	213,256	72,856	96,210	93,587	517,360	pure	tons	
60,000	70,000	60,000	75,000	60,000	80,000	70,000	mixed	tons	
2,151,600	1,624,400	1,961,800	2,093,400	2,263,800	2,142,700	2,275,050	acres		Jute
6,189,200	4,115,500	5,000,000	6,400,000	6,500,000	5,328,000	6,468,000	bales		
1,339,099	1,010,318	1,026,900	990,375	791,190	645,511	743,736	acres		Indigo
163,812	139,320	111,890	148,029	112,819	79,207	106,044	cwt		
214,803	217,814	173,946	294,408	434,222	491,155	461,797	acres		Earthnut
55,962	70,561	9,250	28,631	63,298	61,854	84,220	tons		
...	2,485,681	2,541,470	2,404,156	2,316,391	2,207,829	2,108,296	acres		Sugarcane
...	2,076,234	1,860,005	2,276,748	2,022,476	1,906,784	1,884,999	tons		

Note.—The figures for 1903-04 are subject to revision

RICE

Province	acres	cwt	Province	acres	cwt
Bengal			*Burma*		
1891-92	39,552,008	284,804,161	1891-92	4,215,023	(a)
1892-93	37,324,907	333,956,225	1892-93	4,625,600	50,346,000
1893-94	37,886,500	374,227,800	1893-94	4,928,600	47,874,000
1894-95	38,639,500	416,857,200	1894-95	4,793,341	45,381,980
1895-96	37,447,600	317,514,600	1895-96	5,068,147	41,481,000
1896-97	36,177,400	179,637,400	1896-97	5,224,062	47,679,000
1897-98	39,549,500	398,142,000	1897-98	5,720,766	52,217,000
1898-99	39,605,400	405,842,900	1898-99	5,910,650	44,851,000
1899-1900	39,490,500	357,956,360	1899-1900	6,050,135	54,160,000
1900-01	36,013,900	311,508,600	1900-01	6,326,993	52,975,000
1901-02	35,094,800	272,201,900	1901-02	6,558,190	60,602,000
1902-03	37,553,700	358,977,300	1902-03	6,553,890	53,022,000
1903-04	35,096,400	318,306,000	1903-04	6,757,644	64,411,000
Madras			*Total*		
1891-92	5,771,000	30,000,200	1891-92	49,539,031	314,804,161
1892-93	6,408,200	35,980,400	1892-93	48,358,707	420,282,625
1893-94	6,710,200	37,017,600	1893-94	49,525,300	459,119,400
1894-95	6,569,400	35,662,600	1894-95	50,002,241	497,901,780
1895-96	6,881,000	56,359,500	1895-96	49,396,747	415,355,100
1896-97	6,620,000	48,359,700	1896-97	48,021,462	275,676,100
1897-98	6,935,200	47,991,700	1897-98	52,205,466	498,350,700
1898-99	7,166,000	54,946,700	1898-99	52,682,050	505,640,600
1899-1900	6,429,000	39,437,100	1899-1900	51,969,635	451,553,460
1900-01	6,591,600	49,023,100	1900-01	48,932,493	413,506,700
1901-02	6,858,200	51,490,200	1901-02	48,511,190	384,294,100
1902-03	7,734,800	57,485,500	1902-03	51,842,390	469,484,800
1903-04	8,178,300	61,426,600	1903-04	50,032,344	444,143,600

(a) Not stated

Note.—The figures for 1903-04 are subject to revision

WHEAT

Province	acres	tons	Province	acres	tons
Panjab and N.-W. Frontier			*Bengal*		
1891-92	6,223,600	1,419,765	1891-92	1,300,000	250,000
1892-93	7,123,300	2,235,611	1892-93	1,559,000	466,000
1893-94	8,265,200	2,560,341	1893-94	1,461,000	459,000
1894-95	8,051,800	2,395,353	1894-95	1,413,000	686,300
1895-96	6,893,400	1,753,766	1895-96	1,427,400	345,600
1896-97	6,584,300	1,872,066	1896-97	1,341,700	386,900
1897-98	8,013,800	2,358,975	1897-98	1,569,500	592,600
1898-99	7,729,200	1,977,777	1898-99	1,582,500	656,400
1899-1900	6,366,500	1,823,182	1899-1900	1,550,300	572,700
1900-01	8,766,400	2,940,602	1900-01	1,498,700	472,600
1901-02	8,023,600	2,005,611	1901-02	1,408,300	391,500
1902-03	7,818,100	2,549,308	1902-03	1,417,000	485,900
1903-04	8,759,762	3,378,254	1903-04	1,508,600	527,800
United Provinces			*Bombay (including Native States)*		
1891-92	6,502,097	2,035,229	1891-92	2,176,000	426,000
1892-93	6,307,227	2,354,255	1892-93	2,475,000	654,000
1893-94	6,674,889	1,854,695	1893-94	2,525,000	762,000
1894-95	6,333,688	1,469,996	1894-95	2,678,665	744,961
1895-96	5,177,261	1,591,294	1895-96	2,288,838	454,865
1896-97	4,931,710	1,850,914	1896-97	1,446,741	288,002
1897-98	5,985,146	2,249,633	1897-98	2,004,832	627,914
1898-99	6,348,688	2,277,414	1898-99	2,470,998	737,385
1899-1900	6,202,826	2,410,052	1899-1900	1,157,077	99,408
1900-01	6,790,440	2,384,605	1900-01	1,433,810	298,479
1901-02	6,461,729	2,401,940	1901-02	1,510,459	179,034
1902-03	6,909,549	2,972,497	1902-03	1,797,245	532,601
1903-04	7,884,970	3,230,018	1903-04	1,924,873	515,760
Central Provinces			*Berar*		
1891-92	3,904,000	760,000	1891-92	888,000	136,055
1892-93	4,197,000	762,000	1892-93	985,000	166,395
1893-94	3,986,000	575,000	1893-94	928,000	170,893
1894-95	3,393,348	502,275	1894-95	889,326	150,232
1895-96	2,714,454	368,038	1895-96	747,025	103,084
1896-97	1,969,623	332,645	1896-97	381,425	23,413
1897-98	2,171,714	543,095	1897-98	390,378	41,983
1898-99	2,505,299	456,169	1898-99	436,362	53,571
1899-1900	1,633,070	201,803	1899-1900	17,910	414
1900-01	2,055,736	440,909	1900-01	243,554	29,900
1901-02	2,620,138	571,040	1901-02	280,085	34,385
1902-03	2,284,908	666,589	1902-03	216,955	34,625
1903-04	2,912,187	750,148	1903-04	452,662	85,581

Note.—The figures for 1903-04 are subject to revision

WHEAT—*continued*

Province	acres	tons	Province	acres	tons
Sind (including Native States)			*Hyderabad (c)*		
1891-92	483,000	117,000	1891-92	1,942,824	96,238
1892-93	604,000	204,000	1892-93	1,262,506	97,315
1893-94	531,000	161,000	1893-94	1,162,503	109,234
1894-95	673,251	215,361	1894-95	1,412,562	69,413
1895-96	315,559	71,683	1895-96	1,454,451	85,331
1896-97	406,752	116,470	1896-97	772,990	18,585
1897-98	591,621	177,160	1897-98	1,003,175	30,139
1898-99	369,706	81,231	1898-99	1,113,431	33,098
1899-1900	364,522	68,226	1899-1900	339,136	1,538
1900-01	479,487	123,160	1900-01	636,247	12,279
1901-02	534,004	109,009	1901-02	603,182	38,853
1902-03	331,608	75,987	1902-03	651,992	53,724
1903-04	551,971	192,409	1903-04	1,134,769	100,535
Rajputana			*Mysore*		
1891-92	1,471,000	362,000	1891-92	2,125	154
1892-93	1,604,000	431,000	1892-93	2,640	189
1893-94	1,646,000	389,000	1893-94	(*b*)	(*b*)
1894-95	1,529,146	368,168	1894-95	4,534	304
1895-96	1,806,868	315,573	1895-96	5,456	363
1896-97	1,374,346	233,932	1896-97	3,871	413
1897-98	1,302,233	307,062	1897-98	4,363	331
1898-99	1,196,014	276,388	1898-99	4,029	492
1899-1900	360,733	79,289	1899-1900	2,758	254
1900-01	713,290	170,682	1900-01	2,556	197
1901-02	541,834	103,369	1901-02	3,714	256
1902-03	818,399	190,841	1902-03	5,123	531
1903-04	1,125,277	297,162	1903-04	5,718	630
Central India			*Total*		
1891-92	2,040,126	(*d*)491,300	1891-92	27,032,772	6,093,741
1892-93 (*a*)	1,639,485	278,340	1892-93	27,759,158	7,649,105
1893-94 (*a*)	1,537,143	227,819	1893-94	28,716,735	7,268,932
1894-95	2,042,531	396,567	1894-95	28,421,851	6,998,930
1895-96	1,740,608	290,745	1895-96	24,071,320	5,380,342
1896-97	1,366,269	179,949	1896-97	20,579,727	5,363,289
1897-98	1,501,013	279,492	1897-98	24,537,775	7,208,384
1898-99	1,613,851	287,749	1898-99	25,370,078	6,837,674
1899-1900	692,950	100,276	1899-1900	18,687,782	5,357,142
1900-01	1,244,330	220,116	1900-01	23,864,550	7,093,529
1901-02	1,459,116	255,027	1901-02	23,446,161	6,090,524
1902-03	1,182,298	408,843	1902-03	23,433,177	7,971,446
1903-04	1,972,446	438,545	1903-04	28,233,235	9,566,843

(*a*) Incomplete
(*b*) No information
(*c*) The figures for the years previous to 1902-03 exclude *jagir* areas
(*d*) Revised estimate
Note.—The figures for 1903-04 are subject to revision

COTTON

Province	acres	bales of 400 lb
Bombay (including Native States)		
1891-92	5,171,702	782,180
1892-93	5,286,411	1,044,928
1893-94	5,910,856	1,023,480
1894-95	5,292,717	880,240
1895-96	5,303,598	1,029,455
1896-97	5,033,549	827,819
1897-98	4,751,103	948,514
1898-99	5,098,145	1,232,861
1899-1900	3,095,206	(*a*)81,647
1900-01	4,240,140	759,096
1901-02	4,394,796	567,386
1902-03	4,786,657	943,327
1903-04	5,188,061	1,084,059
Berar(b)		
1891-92	2,244,000	351,230
1892-93	2,186,600	268,385
1893-94	2,184,800	293,563
1894-95	2,102,956	255,628
1895-96	2,071,856	451,230
1896-97	2,306,870	335,576
1897-98	2,150,329	439,980
1898-99	2,476,306	617,222
1899-1900	1,983,602	104,693
1900-01	2,521,651	730,962
1901-02	2,689,201	612,844
1902-03	2,765,635	710,068
1903-04	2,845,905	550,000
Madras		
1891-92	1,243,000	80,000
1892-93	1,326,200	103,600
1893-94	1,724,000	121,200
1894-95	1,521,500	106,980
1895-96	1,623,900	120,524
1896-97	1,395,400	104,655
1897-98	1,509,100	118,876
1898-99	1,321,700	127,670
1899-1900	1,382,700	101,440
1900-01	1,373,300	118,320
1901-02	1,351,200	(*c*) 130,130
1902-03	1,580,900	167,109
1903-04	1,791,100	195,792

Province	acres	bales of 400 lb
Hyderabad (d)		
1892-93	1,384,450	168,004
1893-94	1,456,283	147,199
1894-95	1,611,912	117,277
1895-96	1,492,768	173,283
1896-97	1,558,296	137,152
1897-98	1,653,669	163,449
1898-99	1,738,379	222,302
1899-1900	1,292,329	91,975
1900-01	1,698,836	288,570
1901-02	1,689,139	306,301
1902-03	2,359,130	280,267
1903-04	2,640,752	267,264
United Provinces		
1891-92	1,011,985	163,997
1892-93	837,892	161,881
1893-94	1,069,307	296,643
1894-95	1,214,747	198,333
1895-96	1,060,905	280,414
1896-97	1,150,069	260,521
1897-98	919,671	225,476
1898-99	933,395	261,304
1899-1900	996,673	227,787
1900-01	1,046,176	294,169
1901-02	1,153,870	368,638
1902-03	1,239,131	327,728
1903-04	841,417	183,540
Panjab and N.-W. Frontier		
1891-92	539,900	118,195
1892-93	948,300	200,888
1893-94	1,124,500	231,997
1894-95	1,161,200	241,667
1895-96	1,176,700	204,806
1896-97	1,128,400	223,947
1897-98	788,600	166,707
1898-99	988,400	138,926
1899-1900	1,215,400	205,203
1900-01	1,080,200	219,646
1901-02	1,057,200	220,225
1902-03	1,221,000	236,425
1903-04	1,294,000	284,577

(*a*) The estimate for the year is too low, as the mill consumption for the year ending the 30th June, and the net exports for the year ending the 30th September were 605,000 bales. For both the preceding and the following years the trade figures are however lower than the estimates, so that for the 3 years 1898-1901 the production would seem to be understated only by 109,000 bales. In this calculation the excess of the exports from the districts of the North and East Deccan over their reported production, which averages 208,000 bales in the twelve years 1891—1903, has been taken to represent imports by road into the Presidency from the neighbouring Native States

(*b*) The figures of production for Berar represent the mill consumption for the year ending the 30th June and the exports for the year ending the 30th September, as the provincial estimates of the outturn are extremely defective

(*c*) Estimated yield, including zamindári tracts, 181,200 bales

(*d*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1903-04 are subject to revision

COTTON—*continued*

Province	acres	bales of 400 lb
Central Provinces		
1891-92	738,000	52,000
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	668,522	(*b*) 165,169
1899-1900	712,836	(*b*) 117,050
1900-01	1,004,812	(*b*) 268,958
1901-02	981,342	(*b*) 267,737
1902-03	1,136,431	260,798
1903-04	1,247,405	267,843
Rajputana		
1891-92	517,000	117,000
1892-93	500,400	133,300
1893-94 (*c*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	478,604	117,743
1899-1900	325,033	44,161
1900-01	369,384	104,390
1901-02	281,934	87,858
1902-03	456,503	164,142
1903-04	394,795	113,365
Central India		
1893-94 (*d*)	295,300	31,900
1894-95	512,936	38,000
1895-96	420,239	49,500
1896-97	522,683	45,900
1897-98	417,456	60,600
1898-99	471,408	46,800
1899-1900	479,565	23,100
1900-01	542,673	63,900
1901-02	529,094	72,200
1902-03	591,006	115,878
1903-04	771,870	129,323

Province	acres	bales of 400 lb
Burma		
1898-99	167,821	—
1899-1900	148,563	32,900
1900-01	141,718	21,077
1901-02	130,610	13,125
1902-03	148,867	21,114
1903-04	151,168	27,487
Sind (including Native States)		
1891-92	103,553	38,677
1892-93	69,754	37,784
1893-94	115,810	75,081
1894-95	113,589	55,141
1895-96	111,855	51,018
1896-97	123,706	56,694
1897-98	108,227	40,176
1898-99	92,312	39,712
1899-1900	92,069	20,507
1900-01	84,560	43,031
1901-02	129,409	72,553
1902-03	195,486	110,808
1903-04	196,878	124,870
Bengal		
1892-93	231,800	31,300
1893-94	216,000	30,400
1894-95	203,700	33,489
1895-96	197,900	26,009
1896-97	157,100	20,164
1897-98	174,000	29,890
1898-99	167,900	25,973
1899-1900	160,600	23,149
1900-01	127,700	26,069
1901-02	118,500	19,756
1902-03	100,300	17,210
1903-04	96,000	18,190
Assam		
1903-04	31,000	11,500
Mysore		
1903-04	58,222	9,555
Ajmer-Merwara		
1903-04	33,111	13,820

Total

	Acres	Outturn as shown above (in bales of 400 lb)	Exports and mill consumption (in bales of 400 lb) (*e*)
1891-92	11,569,140	1,703,279	2,386,276
1892-93	13,424,007	2,235,970	2,318,028
1893-94	15,405,156	2,502,763	2,556,537
1894-95	14,956,603	2,192,647	2,239,019
1895-96	14,515,662	2,645,041	2,882,042
1896-97	14,643,495	2,244,870	2,651,597
1897-98	13,683,437	2,450,333	2,653,710
1898-99	14,602,892	2,895,632	3,140,130
1899-1900	11,884,576	1,073,612	2,093,521
1900-01	14,231,150	2,938,188	2,703,648
1901-02	14,506,295	2,732,253	3,310,733
1902-03	16,581,046	3,354,874	3,750,549
1903-04	17,581,684	3,281,185	3,543,353

(*a*) Exclusive of zamindári area in Raipur, Bilaspur, and Sambalpur

(*b*) Represent exports and consumption of the years ending the 30th September as the estimates of the yield are imperfect

(*c*) Exclusive of Tonk

(*d*) Exclusive of the greater part of the Bhopal Agency

(*e*) The exports are for the year ending the 30th September and the mill consumption for the year ending the 30th June. No reliable information exists as to the annual consumption outside the mills but a million cwt. or 280,000 bales is probably below the mark. The deficiency in the total of the estimates compared with the quantities exported and consumed which is especially noticeable in the year 1899-1900 cannot be satisfactorily allocated, but it is probable that the remaining errors are chiefly in the estimates of Native States

Note.—The figures for 1903-04 are subject to revision

LINSEED

Province	acres	tons
Bengal		
1892-93	805,700	121,900
1893-94	777,100	131,800
1894-95	732,900	120,900
1895-96	712,700	95,600
1896-97	587,800	84,900
1897-98	662,800	125,400
1898-99	677,900	144,700
1899-1900	653,200	126,700
1900-01	806,700	133,400
1901-02	783,800	110,600
1902-03	864,200	160,000
1903-04	924,500	169,100
United Provinces		
1891-92 (*a*) Pure	622,000	110,000
1891-92 (*a*) Mixed	545,000	97,000
1892-93 Pure	481,000	74,000
1892-93 Mixed	604,000	94,000
1893-94 Pure	742,000	101,000
1893-94 Mixed	503,000	65 000
1894-95 Pure	753,857	69,165
1894-95 Mixed	603,000	53,899
1895-96 Pure	403,565	55,796
1895-96 Mixed	560,000	82,462
1896-97 Pure	235,166	40,036
1896-97 Mixed	345,000	58,504
1897-98 Pure	519,461	110,619
1897-98 Mixed	425,000	90,976
1898-99 Pure	438,728	87,854
1898-99 Mixed	445,000	91,284
1899-1900 Pure	357,880	73,267
1899-1900 Mixed	409,000	89,464
1900-01 Pure	448,206	75,780
1900-01 Mixed	466,000	79,000
1901-02 Pure	373,092	75,876
1901-02 Mixed	498,000	100,113
1902-03 Pure	536,044	114,595
1902-03 Mixed	621,000	122,000
1903-04 Pure	792,057	144,736
1903-04 Mixed	592,000	105,000
Central Provinces		
1891-92	1,388,000	112,000
1892-93	1,384,000	134,000
1893-94	1,788,000	132,000
1894-95	1,498,672	42,532
1895-96	730,750	45,253
1896-97	527,421	19,391
1897-98	683,728	69,783
1898-99	838,255	58,955
1899-1900	306,933	4,319
1900-01	495,165	20,652
1901-02	609,596	32,786
1902-03	494,137	42,352
1903-04	804,539	76,898
Hyderabad (*b*)		
1896-97	324,455	11,355
1897-98	438,030	15,141
1898-99	426,045	13,443
1899-1900	171,970	1,506
1900-01	371,983	8,774
1901-02	370,376	18,403
1902-03	378,559	22,343
1903-04	516,685	24,234

Province	acres	tons
Berar		
1891-92	364,000	35,000
1892-93	354,000	21,000
1893-94	578,000	29,000
1894-95	385,563	13,893
1895-96	500,650	27,497
1896-97	188,142	4,576
1897-98	180,472	10,405
1898-99	171,085	7,683
1899-1900	21,564	—
1900-01	154,716	5,382
1901-02	185,738	9,606
1902-03	120,753	7,289
1903-04	184,823	11,041
Bombay (including Native States)		
1891-92	270,000	19,000
1892-93	233,000	25,000
1893-94	402,000	52,000
1894-95	410,692	25,308
1895-96	606,428	63,261
1896-97	157,763	2,221
1897-98	223,396	23,646
1898-99	277,462	23,975
1899-1900	137,356	428
1900-01	141,221	3,036
1901-02	224,002	4,537
1902-03	198,544	12,989
1903-04	294,151	25,649
Rest of India		
1891-92	567,000	114,000
1892-93	567,000	114,000
1893-94	567,000	114,000
Total		
1891-92 Pure	3,211,000	390,000
1891-92 Mixed	545,000	97,000
1892-93 Pure	3,824,700	489,900
1892-93 Mixed	604,000	94,000
1893-94 Pure	4,854,100	559,800
1893-94 Mixed	503,000	65,000
1894-95 Pure	3,781,684	271,798
1894-95 Mixed	603,000	53,899
1895-96 Pure	2,954,093	287,407
1895-96 Mixed	560,000	82,462
1896-97 Pure	2,020,747	162,479
1896-97 Mixed	345,000	58,540
1897-98 Pure	2,707,887	354,994
1897-98 Mixed	425,000	90,976
1898-99 Pure	2,829,475	336,610
1898-99 Mixed	445,000	91,284
1899-1900 Pure	1,648,903	206,220
1899-1900 Mixed	409,000	89,464
1900-01 Pure	2,417,991	247,024
1900-01 Mixed	466,000	79,000
1901-02 Pure	2,546,604	251,808
1901-02 Mixed	498,000	100,113
1902-03 Pure	2,592,237	359,568
1902-03 Mixed	621,000	122,000
1903-04 Pure	3,516,755	451,658
1903-04 Mixed	592,000	105.000

(*a*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1903-04 are subject to revision

RAPE AND MUSTARD

Province		acres	tons
Bengal			
1892-93		2,256,000	372,300
1893-94		2,209,100	334,200
1894-95		2,221,600	343,700
1895-96		2,148,400	332,400
1896-97		2,003,900	312,300
1897-98		2,239,700	438,600
1898-99		2,167,200	448,200
1899-1900		2,032,900	371,900
1900-01		2,043,200	337,800
1901-02		1,922,400	372,900
1902-03		1,914,100	341,700
1903-04		1,970,500	364,800
Panjab and N.-W. Frontier			
1891-92		594,100	68,272
1892-93		849,900	134,720
1893-94		899,900	112,016
1894-95		802,600	97,224
1895-96		475,100	50,602
1896-97		515,300	52,756
1897-98		1,112,300	142,115
1898-99		582,600	56,041
1899-1900		397,500	26,761
1900-01		1,638,400	248,022
1901-02		739,500	73,084
1902-03		1,047,000	105,008
1903-04		1,169,131	176,363
Assam			
1891-92		168,000	36,000
1892-93		170,000	45,000
1893-94		168,000	34,000
1894-95		134,399	20,249
1895-96		182,640	36,388
1896-97		178,408	38,853
1897-98		167,268	31,878
1898-99		134,856	21,891
1899-1900		119,110	21,789
1900-01		126,309	21,140
1901-02		157,671	28,294
1902-03		174,719	27,905
1903-04		171,444	29,283
United Provinces			
1891-92 (*a*)	Pure	132,000	32,000
	Mixed	1,495,000	360,000
1892-93	Pure	126,000	27,000
	Mixed	1,731,000	367,000
1893-94	Pure	131,000	21,000
	Mixed	1,557,000	240,000
1894-95	Pure	109,347	16,497
	Mixed	1,613,000	216,050
1895-96	Pure	95,678	26,554
	Mixed	1,290,000	359,979
1896-97	Pure	83,372	18,524
	Mixed	1,526,000	340,602
1897-98	Pure	88,822	28,417
	Mixed	1,459,000	436,451
1898-99	Pure	92,679	22,884
	Mixed	1,509,000	410,983
1899-1900	Pure	76,180	21,186
	Mixed	1,381,000	425,471
1900-01	Pure	94,130	24,060
	Mixed	1,449,000	372,000
1901-02	Pure	120,436	36,841
	Mixed	1,461,000	430,617
1902-03	Pure	140,296	31,320
	Mixed	2,335,000	516,000
1903-04	Pure	130,973	29,643
	Mixed	2,429,000	542,000

Province		acres	tons
Sind (including Native States)			
1891-92		169,000	22,000
1892-93		140,000	20,000
1893-94		111,000	17,000
1894-95		222,413	24,852
1895-96		53,664	8,503
1896-97		72,093	11,101
1897-98		154,248	27,277
1898-99		70,766	8,601
1899-1900		64,637	6,193
1900-01		119,596	12,304
1901-02		113,140	12,049
1902-03		78,606	7,813
1903-04		117,681	22,743
Bombay (including Native States)			
1891-92		44,000	7,000
1892-93		65,000	13,000
1893-94		89,000	18,000
1894-95		91,822	18,509
1895-96		49,431	7,617
1896-97		55,615	8,207
1897-98		56,830	14,380
1898-99		53,091	9,795
1899-1900		2,536	111
1900-01		39,134	6,613
1901-02		17,438	1,721
1902-03		54,625	7,891
1903-04		35,912	5,772
Hyderabad (b)			
1896-97		1,994	73
1897-98		3,828	140
1898-99		8,796	286
1899-1900		905	6
1900-01		16,597	286
1901-02		12,077	146
1902-03		12,537	289
1903-04		14,253	260
Rest of India			
1891-92		68,000	10,000
1892-93		68,000	10,000
1893-94		68,000	10,000
Total			
1891-92	Pure	1,175,100	175,272
	Mixed	1,495,000	360,000
1892-93	Pure	3,674,900	622,580
	Mixed	1,731,000	367,000
1893-94	Pure	3,676,000	546,216
	Mixed	1,557,000	240,000
1894-95	Pure	3,582,181	521,031
	Mixed	1,613,000	216,050
1895-96	Pure	3,004,913	462,064
	Mixed	1,290,000	359,979
1896-97	Pure	2,910,682	441,814
	Mixed	1,526,000	340,602
1897-98	Pure	3,822,996	682,807
	Mixed	1,459,000	436,451
1898-99	Pure	3,109,988	567,698
	Mixed	1,509,000	410,983
1899-1900	Pure	2,693,768	447,946
	Mixed	1,381,000	425,471
1900-01	Pure	4,077,366	650,225
	Mixed	1,449,000	372,000
1901-02	Pure	3,082,662	525,035
	Mixed	1,461,000	430,617
1902-03	Pure	3,421,883	521,926
	Mixed	2,335,000	516,000
1903-04	Pure	3,609,894	628,864
	Mixed	2,429,000	542,000

(*a*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1903-04 are subject to revision

SESAMUM

Province	acres	tons
Madras		
1891-92	501,000	26,700
1892-93	635,600	(a) 46,300
1893-94	717,500	51,300
1894-95	613,600	40,700
1895-96	824,700	54,700
1896-97	562,800	48,100
1897-98	826,000	69,000
1898-99	690,700	68,100
1899-1900	665,900	45,100
1900-01	850,000	68,200
1901-02	727,700	66,400
1902-03	782,700	71,700
1903-04	668,400	79,600
Bombay (including Native States)		
1891-92	590,000	79,000
1892-93	703,500	105,500
1893-94	668,600	78,900
1894-95	754,072	100,438
1895-96	843,039	98,104
1896-97	770,553	65,600
1897-98	681,905	103,136
1898-99	754,327	115,566
1899-1900	303,148	6,186
1900-01	719,642	105,167
1901-02	802,935	64,421
1902-03	904,523	177,137
1903-04	1,039,943	204,156
Central Provinces		
1891-92	456,000	17,000
1892-93	503,000	33,000
1893-94	534,700	31,300
1894-95	520,099	27,714
1895-96	569,407	45,243
1896-97	627,948	43,953
1897-98	749,491	67,770
1898-99	634,268	43,475
1899-1900	1,026,257	62,132
1900-01	983,260	82,138
1901-02	710,641	39,020
1902-03	1,075,057	96,610
1903-04	962,296	72,612
Bengal		
1894-95	356,200	43,400
1895-96	368,900	36,000
1896-97	332,500	30,800
1897-98	367,500	49,900
1898-99	367,200	52,100
1899-1900	388,200	49,700
1900-01	396,000	45,400
1901-02	411,100	54,900
1902-03	384,800	45,000
1903-04	422,600	57,200
United Provinces		
1891-92 (c) Pure	142,000	8,000
1891-92 (c) Mixed	551,000	32,000
1892-93 Pure	152,600	14,700
1892-93 Mixed	407,000	40,000
1893-94 Pure	200,600	19,700
1893-94 Mixed	509,000	50,000
1894-95 Pure	177,043	15,513
1894-95 Mixed	448,000	40,000
1895-96 Pure	148,833	14,554
1895-96 Mixed	560,000	55,000
1896-97 Pure	177,785	12,222
1896-97 Mixed	672,000	45,000
1897-98 Pure	147,817	14,994
1897-98 Mixed	584,000	60,000
1898-99 Pure	155,178	15,159
1898-99 Mixed	713,000	70,000
1899-1900 Pure	203,604	22,743
1899-1900 Mixed	517,000	60,000
1900-01 Pure	238,154	28,431
1900-01 Mixed	622,000	75,000
1901-02 Pure	252,870	23,226
1901-02 Mixed	611,000	60,000
1902-03 Pure	316,150	35,279
1902-03 Mixed	717,000	80,000
1903-04 Pure	371,950	34,402
1903-04 Mixed	747,000	70,000

Province	acres	tons
Panjab and N.-W. Frontier		
1891-92	122,000	15,000
1892-93	204,500	25,900
1893-94	234,800	25,900
1894-95	319,200	31,917
1895-96	189,400	18,772
1896-97	223,400	21 379
1897-98	195,400	22,984
1898-99	252,600	25,350
1899-1900	216,400	16,253
1900-01	218,500	19,077
1901-02	211,500	17,640
1902-03	244,000	20,819
1903-04	246,600	26,120
Sind (including Native States)		
1891-92	103,000	(a) 7,800
1892-93	109,500	10,516
1893-94	177,740	12.309
1894-95	191,040	15,892
1895-96	151,038	12,052
1896-97	183,873	12,384
1897-98	154,812	8,260
1898-99	114,129	8,285
1899-1900	158,957	7,323
1900-01	105,881	4,468
1901-02	99,693	5,985
1902 03	118,044	7,602
1903-04	116,216	5,732
Berar		
1891-92	123,000	6,300
1892-93	115,100	4,000
1893-94	85,300	3,200
1894-95	69,715	2,359
1895-96	76,155	2,704
1896-97	103,298	3,515
1897-98	135,164	6,573
1898-99	135,483	5,620
1899-1900	116,089	1,436
1900-01	149,022	9,554
1901-02	118,349	2,953
1902-03	138,092	5,402
1903-04	121,551	4,213
Hyderabad (b)		
1896-97	387,041	13,005
1897-98	404,020	13,200
1898-99	426,740	14,463
1899-1900	237,512	2,383
1900-01	392,032	10,421
1901-02	377,023	21,660
1902-03	472,282	34,038
1903-04	594,813	33,325
Total		
1891-92 Pure	2,037,000	159,800
1891-92 Mixed	551,000	32,000
1892-93 Pure	2,423,800	239,916
1892-93 Mixed	407,000	40,000
1893-94 Pure	2,619,240	222,609
1893-94 Mixed	509,000	50,000
1894-95 Pure	3,000,969	277,933
1894-95 Mixed	448,000	40,000
1895-96 Pure	3,171,472	282,129
1895-96 Mixed	560,000	55,000
1896-97 Pure	3,369,198	250,958
1896-97 Mixed	672,000	45,000
1897-98 Pure	3,662,109	355,817
1897-98 Mixed	584,000	60,000
1898-99 Pure	3,530,625	348,118
1898-99 Mixed	713,000	70,000
1899-1900 Pure	3,316,067	213,256
1899-1900 Mixed	517,000	60,000
1900-01 Pure	4,012,491	372,856
1900-01 Mixed	622,000	75,000
1901-02 Pure	3,711,711	296,210
1901-02 Mixed	611,000	60,000
1902-03 Pure	4,435,648	493,537
1902-03 Mixed	717,000	80,000
1903-04 Pure	4,744,369	517,360
1903-04 Mixed	747,000	70,000

(a) Incomplete

(b) The figures for the years previous to 1902-03 exclude *jagir* areas

(c) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

Note.—The figures for 1903-04 are subject to revision

JUTE

Province	acres	bales of 400 lb
Bengal		
1891	(a) 1,403,445	(a) 2,971,794
1892	2,135,142	5,717,444
1893	2,222,600	5,001,700
1894	2,264,300	6,144,300
1895	2,242,700	6,425,900
1896	2,196,600	5,032,000
1897	2,151,600	6,189,200
1898	1,624,400	4,115,500
1899	1,961,800	5,000,000
1900	2,093,400	6,400,000
1901	2,263,800	6,500,000
1902	2,108,300	5,280,000
1903 (b)	2,236,800	6,378,000
Assam		
1902	34,400	(a) 48,000
1903	38,250	90,000
Total		
1902	2,142,700	5,328,000
1903	2,275,050	6,468,000

INDIGO

Province	acres	cwt
Bengal		
1892-93	645,950	92,006
1893-94	648,928	67,285
1894-95	629,100	104,485
1895-96	552,700	73,133
1896-97	582,200	56,671
1897-98	529,500	50,415
1898-99	512,100	74,321
1899-1900	449,200	44,996
1900-01	360,600	47,707
1901-02	311,200	41,820
1902-03	255,500	21,924
1903-04	249,700	27,955
United Provinces		
1891-92	201,269	20,533
1892-93	206,516	26,545
1893-94	349,980	38,106
1894-95	420,242	41,524
1895-96	342,102	33,786
1896-97	436,601	40,713
1897-98	376,899	37,545
1898-99	240,418	26,416
1899-1900	231,400	17,977
1900-01	262,175	31,529
1901-02	168,990	18,986
1902-03	135,811	10,007
1903-04	140,836	12,823
Madras		
1891-92	166,130	18,540
1892-93	301,000	50,420
1893-94	442,400	58,100
1894-95	514,500	67,480
1895-96	414,900	63,680
1896-97	454,700	50,740
Madras—continued		
1897-98	323,900	61,460
1898-99	210,600	30,320
1899-1900	249,000	33,340
1900-01	251,900	46,100
1901-02	239,400	38,480
1902-03	212,200	40,260
1903-04	279,000	52,940
Panjab		
1891-92	52,200	9,256
1892-93	65,300	10,085
1893-94	110,700	15,946
1894-95	124,200	24,005
1895-96	104,300	20,325
1896-97	135,400	20,549
1897-98	108,800	17,392
1898-99	47,200	8,263
1899-1900	97,300	15,577
1900-01	115,700	22,693
1901-02	71,600	13,533
1902-03	42,000	7,016
1903-04	74,200	12,326
Total		
1891-92 (a)	419,599	48,329
1892-93	1,218,766	179,056
1893-94	1,552,008	179,437
1894-95	1,688,042	237,494
1895-96	1,414,002	190,924
1896-97	1,608,901	168,673
1897-98	1,339,099	166,812
1898-99	1,010,318	139,320
1899-1900	1,026,900	111,890
1900-01	990,375	148,029
1901-02	791,190	112,819
1902-03	645,511	79,207
1903-04	743,736	106,044

(a) Incomplete

(b) Includes 23,200 acres and 50,000 bales for the Cooch Bihar State of which statistics for previous years are not availab

Note.—The figures for 1903-04 are subject to revision

EARTHNUT

Province	acres	tons
Madras		
1895-96	243,400	(a)
1896-97	157,300	
1897-98	94,500	
1898-99	116,200	
1899-1900	102,000	
1900-01	229,997	
1901-02	337,600	
1902-03	421,300	
1903-04	384,300	
Bombay (including Native States)		
1896-97	148,726	(a)
1897-98	120,303	(b) 55,962
1898-99	101,614	70,561
1899-1900	71,946	9,250
1900-01	64,411	28,631
1901-02	96,622	63,298
1902-03	69,855	61,854
1903-04	77,497	84,220

Province.	acres	tons
Total		
1895-96	(c) 243,400	(a)
1896-97	306,026	(a)
1897-98	214,803	(d) 55,962
1898-99	217,814	(d) 70,561
1899-1900	173,946	(d) 9,250
1900-01	294,408	(d) 28,631
1901-02	434,222	(d) 63,298
1902-03	491,155	(d) 61,854
1903-04	461,797	(d) 84,220

SUGARCANE

Province	acres	tons
Bengal		
1898-99	861,100	871,435
1899-1900	884,400	817,185
1900-01	801,800	811,420
1901-02	661,200	676,410
1902-03	673,500	681,580
1903-04	646,400	667,345
United Provinces		
1898-99	1,227,881	1,204,799
1899-1900	1,259,070	838,885
1900-01	1,212,456	1,193,214
1901-02	1,228,691	976,222
1902-03	1,151,777	904,132
1903-04	1,070,606	876,670
Punjab		
1898-99	351,200	(a)
1899-1900	343,600	203,935
1900-01	334,500	272,114
1901-02	351,500	239,105
1902-03	309,400	204,012
1903-04	322,400	232,664

Province	acres	tons
Madras		
1898-99	45,500	(a)
1899-1900	54,400	
1900-01	55,400	
1901-02	51,100	109,400
1902-03	46,500	93,400
1903-04	41,800	83,700
N.-W. Frontier		
1901-02	23,900	21,339
1902-03	26,652	23,660
1903-04	27,090	24,620
Total		
1898-99 (d)	2,485,681	2,076,234
1899-1900 (d)	2,541,470	1,860,005
1900-01 (d)	2,404,156	2,276,742
1901-02	2,816,391	2,022,476
1902-03	2,207,829	1,906,784
1903-04	2,108,296	1,884,999

(a) No information (b) Excluding Native States (c) Madras only (d) Incomplete

Note.—The figures for 1903-04 are subject to revision

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Seventh Issue]

AREA AND YIELD

OF CERTAIN PRINCIPAL CROPS IN INDIA

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

SUGARCANE

FOR VARIOUS PERIODS FROM

1891-92 TO 1904-05

CALCUTTA
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA
1905

Price Five Annas

BOMBAY BRANCH

OF THE

Royal Asiatic Society.

INTRODUCTORY NOTE

THE Government of India issue periodically during the year estimates of the yield of certain crops compiled, from local statements, in the Statistical Department.

The general practice is to issue a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two, but for both cotton and sesamum, of which there are early and late varieties, four reports are issued. The summaries in the present publication are a condensation with corrections of the final estimates presenting in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables, abstracted from those appended to the final estimates, in which are stated the area sown and the estimated yield of the crops. The estimates are not made for the whole of India and are necessarily, in the most favourable circumstances, only approximations to the truth. The very complete agricultural records in most of the provinces in connection with the assessment of the land revenue enable the area sown with each crop to be often stated with great exactness, but an equally important factor in determining the outturn, namely, the average yield per acre, has to be estimated, and exactness can be obtained only by the most careful analysis of the classes of soil, the methods of cultivation, and the conditions of each season, that is generally the quantity and dates of the rainfall in every part of the reporting area. The quantitative estimates are thus often imperfect and generally they have been too low. The attention recently paid to the estimates of the cotton crop, which will doubtless lead to greater accuracy in future, has shown that some of the estimates relating to past years were extremely defective. The revision of the estimates which was attempted has been only partially successful, as the known deficiency in the total production cannot always be distributed owing to the large unregistered movements of cotton across provincial boundaries by road, and the want of reliable information for some of the Native States. Arrangements were, however, made to obtain in future information from certain parts of India for which forecasts had not been previously prepared, and to base the estimates of the yield on data corrected by the ascertained actuals of past seasons; and although estimates for the *zamindari* areas of Madras are still lacking, the reported outturn in 1904-05 shows the great improvement of a small surplus over the exports and estimated mill consumption, instead of the customary failure to account for the whole of the cotton coming into sight.

Attention has also been paid to the improvement of the jute forecasts, and the yield for past years, from 1895 onwards, has been corrected by the statistics of exports and consumption, but the estimates of the area cultivated are still based on uncertain data, although they have recently been improved. Next to cotton and jute the estimates of acreage are most complete for wheat, as the only wheat-growing areas of any importance for which forecasts have not been obtained, are the Native States of the Panjab. For the other crops, however, the estimates of area are only for particular regions where those crops are largely grown, and not for the whole of India. Thus, the rice estimates relate only to Bengal, Lower Burma, and Madras, and those for sugarcane to Bengal,

Madras, the United Provinces, the Panjab, and the North-West Frontier. Again, for the reporting territories the estimates are sometimes imperfect, for, with some exceptions, those tracts have been excluded which have not been accurately surveyed or are held under privileged tenures, and hence do not possess the regular establishments maintained elsewhere for reporting the area placed under each crop. The most serious omission from this cause is in the figures for Madras, which is a large producer of rice, cotton, sesamum, and indigo, but has hitherto made forecasts only for the Government villages or about two-thirds of the area of the British districts. The Feudatory States within provincial boundaries are also omitted from the forecasts of all the provinces except Bombay and Sind. But for these omissions and a certain element of uncertainty in regard to crops which are sown as mixtures of two or more crops in the same field, the estimates of area relating to the Panjab, Berar, the United Provinces, the Central Provinces, and Madras may be regarded as fairly exact. The statistics for the British districts of Bombay also stand in the front rank, but in this publication they are combined with the more conjectural figures of the provincial Feudatory States as a large proportion of the cotton, oilseeds, and wheat is grown in those States. The statistics of area for Bengal which relate to nearly the whole of the cultivated portion of the province, omitting unimportant Feudatory States, are more conjectural as they rest on estimates, based on varied sources of information, which have been verified by cadastral surveys for not quite a fifth of the area.

The statistics for the State of Hyderabad and the numerous States in the Central India and Rajputana Agencies rest on similar data to those of British India, and like them mostly refer to tracts where a reporting agency exists, though not equal in efficiency to that of the neighbouring British Provinces. Estimates are also included for some of the revenue-free lands held on privileged tenures.

J. A. ROBERTSON,

On Special Duty in the Dept. of Commerce and Industry

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AREA AND YIELD

OF

CERTAIN PRINCIPAL CROPS IN INDIA

SUMMARY OF THE CONDITIONS OF THE SEASON FROM 1891-92 TO 1904-05

RICE

1891-92

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. Deficient rain during the early part of the season also affected the autumn crop.

In Madras too the season was adverse, the rain failing over large areas.

In Burma conditions were satisfactory.

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.

In Burma conditions were good everywhere.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.

In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable.

1894-95

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.

In Madras the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.

In Burma the crop suffered somewhat from insufficient rain.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.

In Madras the crop generally was fair, though in some places, in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there

RICE

was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.

In Burma the season was favourable and the crop excellent.

1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

1898-99

In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900

In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01

In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

1901-02

In Bengal the season was not entirely favourable for the autumn rice. From April to August the rainfall was unevenly distributed, and in July it was deficient almost everywhere. General and copious rain fell in September, but in October the rains ceased abruptly. For the winter rice the season was more unfavourable. The abrupt termination of the monsoon in September, for there was very little general rain in October, did great injury to the crop, and in all the Bihar districts, where the rainfall in June was also very deficient, it was a failure. The weather was seasonable during transplantation which led to an increase in the area sown.

In Madras the season was not so favourable for early planting as in 1900, but owing to good supplies of water from the irrigation works and generally good rain in August and September an area about equal to the average yielded a crop rather more than the average of recent years.

In Burma conditions were favourable. Rain fell at the end of the first week in February, but the crop, which was greatly in excess of the average, was but very slightly injured.

1902-03

In Bengal the season was not quite favourable for the autumn rice. The ante-monsoon showers were abnormally heavy, and the monsoon rainfall which came somewhat late was unevenly distributed. October was abnormally dry and November was literally rainless. For the winter rice the season, though capricious, was not unfavourable. The weather was seasonable during transplantation. And had it not been for the deficiency of the October rains, the crop would have been much above the average.

In Madras, there was an increase in the area sown chiefly in Cuddapah, Chingleput, and North Arcot, owing to the favourable character of the season. The condition of the crop was generally good.

In Burma floods caused damage in Tharawady and Thongwa and a decrease in cultivation in Henzada. In Myaungmya the fallow area was large owing to cattle disease and sickness among the cultivators, and in Prome owing to untimely rainfall; otherwise prospects were bright.

RICE

1903-04

In Bengal the season was generally unfavourable for the autumn rice owing to a deficient rainfall in the early part of the season and heavy falls at and after the harvest. For the winter rice also the season was not altogether favourable, for although general and abundant rainfall was received at the latter part of the season, the defect at the beginning and, except in Orissa and North Bengal, in the total fall of the season affected not only the area sown, but also the growth of the plants.

In Madras an extended area was sown owing to good and timely rainfall. The condition of the crop was reported to be fair.

In Burma prospects were very favourable, though slight damage had been caused by rain in some districts. The quality of the new grain was reported to be excellent.

1904-05

In Bengal the rainfall was unseasonable and ill-distributed, and in many parts of Bihar heavy rain and floods did considerable damage to the autumn rice. For the winter rice also the season was not a favourable one, though sowings were over a larger area than in the preceding year. The crop suffered from drought from the middle of September, but in Bihar it was to a great extent saved by good rain in the latter part of October. A flood in eastern Bengal in November did considerable damage to the standing crop, while the rest of the province continued to suffer from the drought.

In Madras a restricted area was sown owing to the failure of the rains; and the crop withered in parts from want of moisture.

In Burma the sowing rains were seasonable and sufficient, and consequently an extended area was sown. The crop, however, suffered in places from floods, and high winds and in consequence of the unfavourable break in the rains during October the grain threshed out light in several districts.

WHEAT

1891-92

In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts in February, injured the crop.

In the United Provinces heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth, and the crop was injured by early west winds in some parts of Bihar and north and east Bengal.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnátak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the United Provinces the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and was favourable to germination. The winter rains benefited the crop, especially on unirrigated land.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

WHEAT

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the United Provinces the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

In Bombay the monsoon rainfall was excessive for *kharif* sowings and the area left unsown was utilized for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the United Provinces the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable and rust was common.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Hyderabad heavy rain late in the season reduced the yield.

1895-96

In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the United Provinces the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

1896-97

In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March, and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the United Provinces the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In Hyderabad the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second-half of May damaged the grain on the threshing-floors.

In the United Provinces the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

In Bengal the season was favourable; the autumn rain was copious and well distributed, and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In Hyderabad the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the United Provinces the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable: the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second-half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient inundation, and scanty rainfall.

In Hyderabad the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the third week of January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the United Provinces the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the

WHEAT

rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attempted on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was in almost absolute failure.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In Hyderabad the conditions and results were similar to those in Berar.

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail floods, excessive rain, and water-logging, as also, when it was on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the United Provinces the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarat rust, insects, and cloudy weather did harm. In the Deccan and Karnátak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

In Hyderabad sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.

In Rajputana and Central India both area and yield were much below the average.

1901-02

In the Panjab the monsoon rainfall was less plentiful than usual and ceased early; the winter rains failed entirely. There were no late sowings, and the whole crop went practically without rain until the latter half of March when slight showers saved the withering crop from total destruction in some places. High winds and severe frost in February also proved detrimental to the standing crop, and the yield was decidedly below the average. On irrigated lands the failure was far more extensive. On lands irrigated by wells a considerable part of the crop was in some places used as fodder for cattle.

In North-West Frontier Province the season throughout was one of unusual drought. From October to the end of February no rain fell and sowings on unirrigated lands were much reduced; the crop, where sown, in most cases withered away in March. A normal area was sown on irrigated lands which account for one-third of the crop of the season.

In the United Provinces the monsoon of 1901 was abnormally delayed, and general rain did not set in until the 10th of July. The fall in July and August was well distributed and sufficient; but in the next two months it was deficient in the Meerut division and in parts of Agra and Rohilkhand where sowings in most places were effected with the aid of

irrigation. November and the first three weeks of December were entirely rainless, and irrigation was resorted to wherever possible. The season was unusually dry and the unirrigated crop suffered generally from drought.

In Bengal the rainfall in Bihar was deficient in September and seriously in defect in October, and there was practically no rain until March, when it was too late to benefit the crop. There was a contraction in the area sown owing to drought at the sowing season in Bihar where the yield was much below the normal.

In the Central Provinces the season was abnormally dry, the October rain on which the germination of wheat largely depends, being represented by only a few local showers, and there was no rain thereafter except in the first-half of January in some places. Frost, rats, and insects also injured the crop.

In Berar the monsoon rainfall was in excess of the normal, and although there were no winter rains, the moisture in the soil at sowing time was sufficient to promote the growth of the young plants and to bring the wheat satisfactorily into ear. At this stage, however, rats appeared in large numbers and did considerable injury, destroying in some localities almost the whole crop of the field in a single night.

In Bombay there was a contraction in the area sown owing to the deficiency of late rain. In Gujarat and north Deccan, the September rain was very deficient and sowings made little progress until after the October rains. No rain fell in November and December. and the crop suffered considerably not only from want of surface moisture, but also from the scanty supply in the wells. The surviving crop was further almost destroyed by a very severe plague of rats. In the south Deccan and the Karnátak, the September rain was generally sufficient, but that in October was below the average and checked full sowings. Later rains were light and partial and the crop withered in many places, particularly in the eastern tracts where no rain fell and no irrigation was possible. Damage by insects and disease was also reported from a few places. The Sind crop was fairly good.

In Hyderabad conditions were at first somewhat favourable, but rats did considerable injury in places and over a large area; the late rains were also not favourable.

In Rajputana both area and yield were much below the average. In Central India the area and yield were larger than the quinquennial average, but a little short of the decennial average.

1902-03

In the Panjab conditions were favourable for early sowing on irrigated lands, and a considerable area was sown, except in the Mooltan division where canal water and rainfall were insufficient. The practical absence of rain until the fourth week of January rendered late sowings on dry lands impossible, and caused much injury to crops on such lands. In the submontane and central districts good rain in January, considerably improved prospects. February was practically rainless, and a very anxious period ensued until the advent of copious, frequent, and general rain in March. Good showers continued well into April, which was beneficial as the crop was very backward. On the whole the conditions were favourable at the beginning and end of the season, but the prolonged drought in the middle of the season caused considerable injury to the crops on dry lands.

In the North-West Frontier Province, on the whole the season was a favourable one. Conditions of the weather were very similar to that in the Panjab. The crop came to maturity in a good healthy condition. but the quality of the grain was damaged to some extent when it was lying on the threshing-floor by the heavy rains of April and May.

In the United Provinces rainfall in September and October was favourable for the preparation of fields; moisture in the soil was sufficient; and the seed germinated freely. After this the season was unusually dry and irrigation was resorted to on a large scale. November and December were entirely rainless and were followed by severe frost. The rain in the last week of January was pretty general and greatly benefited the unirrigated crop. February and March were also practically rainless and the crop was gathered without any mishap, though in the western divisions whiteants, frost, and dry west winds caused some damage.

In Bengal the rainfall in September was general and plentiful, but it was seriously deficient in October, there being practically no rain in south Bihar and Chota Nagpur. The fall in the subsequent months was markedly deficient in Bihar, and in a lesser degree elsewhere. On the whole the season was unfavourable to the wheat crop.

In the Central Provinces the monsoon rainfall was favourable for the preparation of land. In the southern districts, however, the monsoon ceased extraordinarily early in September and consequently the area sown was contracted, whilst the early growth of the plants was stunted. Prospects were gloomy, but were much improved by some good cold weather showers. In the northern districts the season was throughout favourable owing to the late monsoon rainfall and an exceptionally heavy fall at the end of October. Consequently the area sown showed a substantial increase. The cold weather showers were also exceptionally good and beneficial. In these districts the crop was the best reaped during the past ten years, and, but for some damage by frost and insects, would have been a heavy bumper crop.

In Berar the area was contracted owing to the repeated failure of the late rains during the past few years which made cultivators fear to reserve much land for winter sowings. The

WHEAT

rainfall during the year was up to the average, and the exceptionally good showers in November and December greatly benefited the growth of the plants, and raised the yield above that of the previous year, although a contracted area was sown.

In Bombay the season was very good in Gujarat; in the Deccan and Karnátak the crop was somewhat damaged by heavy rain in December, and in Sind it suffered from a poor inundation. For the province generally the season was above the average. The monsoon was late, beginning in the second week of July. Some of the early crops were lost and had to be resown. August rain was sufficient and September rain was very good. The October rain was below the average, but in November heavy widespread rain was of great benefit to the young crop. An unusually heavy fall in December injured the crop in places.

In Hyderabad area was contracted, but the outturn was satisfactory.

In Rajputana there was a substantial increase in both area and yield. In Central India the area did not reach the figures of last year which showed a large increase over those of the year previous and the quinquennial average, but the yield was as good or better.

In Mysore both area and yield were substantially larger than those of the preceding year and the average.

1903-04

In the Panjab conditions were distinctly favourable from the beginning to the end of the season. The crop was also unquestionably a bumper one and the straw was as good as the grain. A serious misfortune which calls for special notice is the particularly virulent outbreak of plague which visited the new Jhelum colony. In consequence of this a large proportion of the new settlers fled to their old homes, abandoning a large area of splendid wheat which was left to rot on the ground.

In the North-West Frontier Province copious and well distributed monsoon rains facilitated the preparation of an unusually large area for wheat sowings, and the heavy rain in December and January enabled the cultivators to make extensive late sowings on unirrigated lands. February was fair and favourable for growth. Heavy and opportune rain was received in all districts throughout March and an unusually large proportion of an unusually large area was brought to maturity. The yield all round was said to be the best within living memory.

In the United Provinces owing to the heavy and continuous rain at the close of the monsoon, which spoiled much of the value of the early tillage, the crop was sown rather late, with inferior tillage and excessive moisture in the ground. From sowing time onwards, however, the season was, on the whole, remarkably favourable, the deficiency of the winter rains being largely made up by artificial irrigation. The cloudy weather at the end of February and the beginning of March induced a rapid spread of rust, but it came too late to do serious harm. The quality of the grain was good except in a few localities where the crop suffered from drought or strong winds.

In Bengal the heavy rains in October favoured the retention of moisture by the soil during the wheat-growing season. In November light showers were obtained all over the province, except in Bihar where the bulk of the wheat crop is raised. December was practically rainless, but the crop in Bihar was much benefited by the January rains. In February the rainfall was more general and copious. On the whole, the season was generally favourable.

In the Central Provinces and Berar an extended area was sown with wheat. The crop was, however, affected by the absence of winter rains. The heavy rain which fell at the end of February and the beginning of March and which was in some localities accompanied by severe hailstorms caused further deterioration, especially in the Berar districts. This deficiency in the weather conditions was, however, made up by the increased area sown.

In Bombay the area under wheat increased in most districts owing to favourable rains at sowing time in the Presidency proper and to a plentiful water-supply in Sind. The season was good in Sind and Gujarat. In the Deccan the crop suffered from deficiency of moisture, and from locusts and rats in places. In the Karnátak late rains were excessive and much damage was done by rust. For the province generally the season was fairly good.

In Hyderabad an increased area was sown, and a very good crop harvested, although damage was done by heavy rains in places.

In Rajputana both area and yield showed a very marked increase over the preceding year.

In Central India both area and yield increased substantially over the figures of the preceding year and the average.

In Mysore also both area and yield was substantially larger than those of the preceding year and the average.

1904-05

In the Panjab conditions of the rainfall were ideal except in a few central districts, but the crop received a serious check everywhere from the abnormally severe frosts which were experienced in the last week of January and the first week of February. Palpable harm was done to all early sown and advanced crops. Fortunately, however, favourable rainfall and sunshine on changed the situation; and, on the whole, the effect of the frost was to retard harvesting

operations by two or three weeks and to convert what would have been a bumper crop into one a little above the normal. WHEAT

In the North-West Frontier Province conditions were similar to those in the Panjab.

In the United Provinces conditions were everywhere most promising till the end of December, but the rest of the season proved disatrous. Owing to frosts of unprecedented severity and rust brought on by damp and cloudy weather enormous damage was done especially in the southern and central districts.

In Bengal the rainfall of October was very favourable throughout the wheat districts. Drought prevailed since then until January when rainfall was again general. But in February and March frost, rain, and hail, did considerable damage in Bihar where the bulk of the crop is grown. On the whole the season was unfavourable.

In the Central Provinces and Berar rainfall was favourable at sowing time and an extended area was placed under the crop. The crop was affected by the frost of January and February in the northern districts, but fortunately the damage was serious only in Saugor. Cloudy weather accompanied by rain storms in the end of February and beginning of March caused the appearance of rust in several districts, but the disease was severe in Jubbulpur only. The southern districts, however, fared much better than the northern, while the winter rains were less favourable in Berar than in the other districts.

In Bombay the area was curtailed in most places owing generally to insufficient sowing rains in the Presidency proper and to low inundation in Sind. The crop suffered through deficiency of moisture everywhere except in Kaira, Cutch, and Dharwar. The severe cold and frost of January-February further injured the crop particularly in Sind, Gujarat, and parts of the Deccan.

In Hyderabad the area sown was very nearly equal to that of the preceding year, but owing to deficient winter rains the yield was much less.

In Rajputana the area was a little below that of the preceding year, but the yield was proportionately much worse.

In Central India the yield showed a decrease, though the area sown was substantially larger than in the preceding year.

In Mysore there was a slight decrease in the area sown, but the yield was considerably below that of the preceding year.

COTTON

891-92

In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July when rain was excessive. These conditions and locusts caused injury to both the early sowings and the late crop.

In the United Provinces the weather conditions were the same as in the Panjab, with a worse result.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low land.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnátak. In Sind the overflow of the Indus was also late and irregular.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it.

1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the United Provinces.

In the Central Provinces excessive and injurious rain fell in September and October.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

COTTON

1893-94

In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the United Provinces continued heavy rain from July to October, and strong winds retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency proper and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious, but on the whole very beneficial.

In the United Provinces, on the other hand, the area was slightly below the average and heavy rain and stormy winds in October and November reduced the yield.

In Bengal, owing to excessive rain, the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

In the Central Provinces and Berar the rains were heavy and injured the standing crop.

In Bombay the rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with the early and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains.

1895-96

In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that on irrigated land the crop was good, but poor on land dependent entirely on rain.

In the United Provinces the rains were generally favourable to the crop, weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season proved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of reasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton. The area sown with the late crop was also below the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year. In Sind there was a deficiency of water.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which was inadequate and the crop was bad.

In the United Provinces there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop especially on unirrigated lands.

In Bengal the season was unfavourable, and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In Hyderabad a restricted area was sown, and the crop was poor.

COTTON

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the United Provinces of Agra and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season, though a little late, was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing *Northern* and *Western* varieties, but the lateness of the monsoon contracted the area in places where *Tinnevelly* and *Salem* cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In Hyderabad the area sown was large, but owing to an unfavourable season, the yield was bad.

1898-99

In the Panjab the rainfall at sowing time was scanty, in August it was irregular and deficient, but favourable showers in September did much to develope and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted.

In the United Provinces the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop.

In Bengal the season was unfavourable owing to the uneven character of the monsoon.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn.

In Berar dry weather in October and the failure of the late rains had a bad effect, but the yield was good.

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In Hyderabad the monsoon was late at the commencement of the season, and though prospects were improved by rain in August and September, the yield was bad.

In Rajputana the season was on the whole unfavourable owing to insufficient rain; in Central India the crop did well.

1899-1900

In the Panjab the prospects of the crop were generally hopeful in the beginning of the season, and sufficient rain at sowing time and a good supply of canal water induced cultivators to sow an extensive area, a large proportion being on land irrigated by canals and wells. But with the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the United Provinces excessive rain in June and July interfered with sowings and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was almost entirely lost.

In Bengal, in the early part of the season, the rainfall was irregularly distributed, and later it was on the whole inadequate, and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain, but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places, and where it survived gave a very poor yield. In Sind the water-supply was deficient and the yield poor.

In Madras the season was, on the whole, unfavourable and the yield very poor.

In Hyderabad the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of

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September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the United Provinces the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

In Bengal the rain in July was, on the whole, well distributed and fairly continuous. In August it was dificient and irregularly distributed. Much more copious and general rain fell in September, but in October it was deficient. The season was, on the whole, unfavourable to early cotton, though fairly favourable to the late cotton except at sowing time.

In the Central Provinces, in consequence of the relative cheapness of cotton seed, favourable conditions at sowing time, and good prices, a very extensive area was sown. The distribution of the rainfall left something to be desired. In some parts the plants were swamped by the heavy and continuous rain of August and September, especially in the richer soils and in low-lying positions. Heavy rain in September also injured the flowers, and the absence of rain in October affected the crop in poor soils and high-lying fields, and owing to insufficient moisture the bolls withered before maturity.

In Berar the area under cotton was the largest known. The monsoon rainfall was better than for many years past. The early rains were somewhat deferred and sowings were later than usual, but the fall in June and July was normal; August was very wet and in September also the fall was excessive; but the rains closed abruptly at the end of that month. The cotton crop on poor soils suffered from lack of moisture, but on all rich black soils and in low-lying lands there was a heavy crop.

In Bombay early cotton in the Deccan and late cotton elsewhere, mainly in Gujarat, covered a restricted area, early rains being deficient and not allowing full sowings. The devotion of part of the usual cotton area to food-grains consequent on the scarcity of the preceding year also accounts for some of the decrease. The crop promised well at first, but afterwards it suffered from the deficiency of the late rains.

In Madras the north-east monsoon failed in some places and the area sown was also restricted by the preference given to the cultivation of food-grains. The crop was generally fair except in the Deccan districts, where *Northerns* and *Westerns* were affected by disease and want of rain.

In Hyderabad with good rain at the sowing season for early cotton a large area was brought under cultivation, but late cotton did not receive sufficient rain; and in the Aurangabad division, which has the largest cotton area in the territory, the sudden cessation of the winter rains kept the crop back.

In Central India both area and yield were much in excess of the average.

In Burma heavy rains greatly injured the crop.

1901-02

In the Panjab the rainfall of May was beneficial to the crop, and the injurious effect of the long break in the rains in September and October was chiefly felt on unirrigated land. Some damage was also done by locusts, grasshoppers, and rats.

In the United Provinces a very large area—the largest since 1894—was placed under cotton, although the rains were late, owing to the stimulus given by the high prices and the plentiful crop of the preceding year

In Bengal the season was on the whole unfavourable by reason of deficient rain for the cotton crop, both early and late.

In the Central Provinces the germination of the crop, which was not sown under favourable conditions, was unequal, and a long break of the rains in the first-half of July necessitated resowings to some extent in most of the important cotton-growing districts. Excessive rain in August did some injury which was not altogether made good by a timely break in the second-half of September. Owing to the absence of rain after September, and the ravages of insects in October, the prospects of the crop materially deteriorated.

In Berar the monsoon rainfall was unusually heavy and continuous. It was not until the beginning of September that a break of any duration occurred and the crop then was suffering from excessive moisture; but three weeks of fine weather followed by timely showers brightened prospects considerably; and the clear cold weather of November and December brought the crop rapidly to maturity. Rats, however, caused much injury.

In Bombay there was some increase in the area sown with early and late cotton in the British districts of Gujarat and the Deccan, and in Baroda and some other Gujarat States,

owing to favourable early rains, but not enough to compensate for the large decline in Káthiáwár and Cutch and in the Karnátak districts, which resulted from the deficiency of rain at the sowing season. In Sind there was a small increase due to a better water-supply. In Gujarat the season began well, but the crop made little progress owing to the failure of the late rains. Afterwards locusts and rats materially injured the surviving crops.

In Madras the condition and prospects of the crop were, on the whole, fair, and unusually late rain in the Deccan districts considerably improved prospects there. On the other hand, late and subsequently very heavy rain retarded sowings in the south; both the area and the yield were, on the whole, below the average.

In Hyderabad the rains were, on the whole, favourable.

In Central India and Rajputana the crop was good.

In Burma the season was not favourable owing to want of rain.

1902-03

In the Panjab, owing to deficient rainfall in February and March, unirrigated cotton sowings contracted. The deficiency of rainfall, however, stimulated cultivation with the aid of irrigation. The rainfall of June was favourable for late sowings on unirrigated lands. The break in the rains towards the close of July and August marred the prospects a good deal and the flowers did not form well. September rains, however, improved the crop very much, but the flowers that formed then were late and the cold of the last few weeks checked further development.

In the North-West Frontier Province timely rainfall from March to June stimulated sowings and proved exceedingly beneficial to the young plants, and the seasonable rains of July, August, and September enabled further sowings to be made. The crop was fairly average.

In the United Provinces owing to a succession of seasons of light rainfall, which generally tends to the success of this crop, the cultivation of cotton extended. Prospects, however, deteriorated, afterwards. In places the flowers fell off without bearing bolls, while in others the full development of the bolls was checked. Damage was also reported in places from high winds and insects. The irrigated early crop escaped serious injury, but the unirrigated late crop suffered severely.

In Bengal owing to insufficient and ill-distributed rainfall the season was anything but favourable to the early crop. For the late crop also the season was not favourable owing to deficient rain.

In the Central Provinces, sowings, though late, were successful over an exceptionally large area. Germination was good, the weather was favourable for weeding, and the plants thrived. Since then the season was not so favourable. In the northern districts heavy rain in October and November did considerable damage just when the plants were in flower, and in the southern districts, the plants suffered in their later stages of growth from drought accompanied by cloudy weather, which caused the withering of immature bolls. Damage was also caused by insects. The season did not thus fulfil its early promise of being an exceptionally favourable one, but it was still about the average.

In Berar the exceptionally good crops of the preceding two seasons and the favourable market prices influenced the cultivators to sow cotton extensively. The monsoon rains commenced unusually late and there was an extensive break in August which caused some anxiety; subsequently the rainfall was light but timely, and prospects were brilliant. Unfortunately heavy rain in November caused considerable damage to the ripe cotton, and in some districts knocked ripening bolls off the plants. But, although the late rains damaged the crop that had reached maturity, a heavier yield than usual was gathered from the later pickings.

In Bombay the area contracted mainly in the British districts of Gujarat and the Deccan, where the opening rains came much later than usual. In the Gujarat States, however, there was a considerable extension in area which made up part of the deficit elsewhere. Though the crop suffered in places from excessive rain and cold at the time of the opening of the bolls, the season was distinctly favourable.

In Madras an extended area was sown owing to good and timely rainfall; and the condition of the crop was reported to be generally good.

In Hyderabad the crop was unfavourably affected in the Mahratwara districts, where most of the cotton is grown, by cloudy weather and untimely rain that fell when the cotton capsules were growing, and in Bidar the capsules fell off in parts.

In Rajputana and Central India the area exceeded the average and the crop was excellent.

In Burma also the crop was very good.

1903-04

In the Panjab, the late spring rains were favourable for sowing throughout the central and north Panjab, with the result that the increase in the area sown in these parts of the province more than compensated for the deficiency in the Delhi division due to the late arrival of the monsoon rains. The outturn was also considerably below the average in the dry area of the Delhi division. Taking the rest of the province as a whole, the late rains caused late flowering, and excessive rains in some districts was also prejudicial to the yield. A few districts also reported high winds at flowering time. But conditions were fairly satisfactory in the most important districts of the province.

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In the North-West Frontier Province the heavy rainfall of March afforded sufficient moisture for cotton sowings. The rainfall of May helped on the crop and that of July improved prospects.

In the United Provinces a relatively small area was sown owing to the late arrival of the monsoon. The rainfall was favourable up to the end of September, when the crop, though backward, was doing fairly well. The excessive rain in October and the strong winds that prevailed changed the whole prospect. In a few western districts, which escaped the full severity of the storm, the crop was comparatively good; elsewhere it was little more than half the normal.

In Bengal the defective rainfall in the early part of the season was, on the whole, favourable to the early cotton crop, except where the rainfall was altogether insufficient in May. In the flowering season, that is, in September and October, the rainfall was generally in excess, and consequently the production was low in most districts. For the late crop also the season was not altogether favourable as the rainfall was generally insufficient.

In the Central Provinces the crop was put down under favourable conditions. Germination was good and very little resowing was necessary. The heavy and continuous rainfall in August and September, however, retarded weeding operations and checked the growth of the plants, while the continuance of rainy weather in October not only prevented this injury being repaired, but also increased the damage from excessive moisture in some of the most important cotton growing districts. Some damage was also caused by grasshoppers in parts of Nimar and Chhindwara. The prospects of the crop therefore materially deteriorated.

In Berar favourable seasons and good prices greatly encouraged the cultivation of cotton and a record area was sown. But the damage caused by heavy rain was reported to be greater here than in the Central Provinces.

In Bombay (including Sind) favourable rains at sowing time extended the area sown almost everywhere. The crop progressed well at first, but later on it suffered from deficiency of moisture in North Gujarat and through its excess in the south. Injury was also caused by locusts in Gujarat and by disease in parts of the Karnátak. On the whole, however, the crop fared well everywhere.

In Madras there was an expansion of the area sown owing to good and timely rainfall. The condition of the crop was reported to be generally good.

In Hyderabad the area sown showed an increase over the preceding record year; but the crop was affected by heavy rain, especially in the western districts. In the southern districts where a large portion of the crop is sown late the crop was better.

In Rajputana, owing to the lateness of the sowing rains, a restricted area was sown. The crop was also damaged by locusts and high winds in places.

In Central India an extended area was sown, and the yield also was well above the preceding year, though the crop suffered considerably from rain in places.

In Burma the early rains generally were scanty, and the later rains somewhat in excess. But fortunately the destruction due to the August drought and the heavy rainfall of October extended to a limited area only and did not appreciably affect the total outturn.

In Assam the crop suffered seriously from drought in March and April. Since then the weather proved generally favourable.

In Ajmer-Merwara rains ceased early after the middle of September, and the crop was injured by locusts and cold winds.

1904-05

In the Panjab there was an extension of cultivation, especially in the Delhi Division, owing to sufficient rainfall at sowing time. The unirrigated crop suffered severely from the failure of the monsoon in the central Panjab. On the whole, however, the yield was fully up to the average, and above the average in many districts.

In the North-West Frontier Province also the heavy rains of March enabled the cultivators to make extensive sowings in April and May. In the succeeding months, from June to October, the rainfall was well distributed and sufficient in all the districts, except Dera Ismail Khan, where it was deficient and affected the crop to a great extent.

In the United Provinces the very large decrease, which took place in 1903-04 in the cultivation of cotton owing to the late arrival of the monsoon, was nearly made up in 1904-05 owing to favourable and sufficient sowing rains in most places. The crop suffered from excessive rain in the Allahabad Division, but in the other cotton growing tracts conditions were satisfactory.

In Bengal the season was unfavourable for the early cotton crop, which suffered from heavy rain in some districts and from want of moisture in others. For the late crop also the season, on the whole, was not favourable the rainfall being ill-distributed, and insufficient in many places.

In the Central Provinces and Berar the sowing season though somewhat late was on the whole favourable and an extended area was sown. Germination was good and the light rainfall during the early monsoon facilitated weeding. Owing to long break in July and the latter part of August, the plants on light soil were stunted, but good rain fell before serious damage had occurred and the plants affected by drought recovered to a great extent. Some damage was done to the crop in places by rain in October when flowers were opening and also

by locusts and other insects, the damage being reported to be greater in Berar than in the other districts.

In Bombay there was a decrease in the area sown in the Deccan, Karnátak, Kathiawar and Cutch due to the shortness of early sowing rains. On the other hand, in the British districts of Gujarat, and also in Sind and Baroda, the cultivation was considerably extended, partly under the stimulus of the high prices of the preceding year and partly in the hope that cotton would be more likely to succeed in a season of deficient rainfall than other crops. The crop, however, suffered everywhere in the Presidency proper through deficiency of moisture, and in places from excessive cold and disease. In Sind the crop was fair.

In Madras an extended area was placed under the crop owing partly to timely rainfall and partly to the good prices obtained in the preceding year. The crop, however, suffered seriously from want of rain.

In Hyderabad owing to favourable conditions of the season both the area and the yield slightly exceeded those of the preceding year.

In Rajputana, Ajmer-Merwara, and Central India an extended area was sown and heavy yield obtained.

In Burma the rains began well and continued favourable till towards the end of season, in October, when they were unusually heavy and did a good deal of damage to the crop.

In Assam the season was generally favourable and a better yield than that of the preceding year was obtained.

In Mysore both the area and the yield were considerably larger than in the preceding year.

OILSEEDS

Linseed, rape, and mustard

1891-92

In the Panjab the season was fairly good for oilseeds, and the area was the largest on record up to that year, but the yield disappointed expectation.

In the United Provinces the season was mild and favourable to linseed, and the rapeseed was free from fungoid disease: both crops, however, suffered to some extent from the lateness of the winter rains.

In Bengal the dryness of the season affected the crops, and reduced the areas considerably in most districts.

In the Central Provinces and Berar the season was on the whole favourable. In the former linseed suffered from the failure of the winter rains; while in the latter rain at sowing time was favourable, but the late rain was scanty.

In Bombay, though a large area was sown with linseed in the North Deccan, the crop was everywhere poor owing to deficient rain, and in the Karnátak it was a complete failure from drought. The rapeseed crop in Gujarat and Sind was also injured by the dryness of the season, and the yield was very deficient.

1892-93

In the Panjab where the oilseeds mature late, the winter rains were followed by a large increase in the area sown.

In the United Provinces the expectations of a good crop were not realised owing to frost and wet weather in January and February.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was good.

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. But on the whole both linseed and rapeseed did well.

In Assam the season was favourable.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair.

In the United Provinces the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crop suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts.

OILSEEDS

In the Central Provinces the crop promised well in the earlier months, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much good.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being good. In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In Hyderabad excessive rain caused a contraction in places of the area sown, while in others timely rainfall promoted sowings.

In Assam the season was favourable for mustard.

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts.

In the United Provinces the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was poor.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In Hyderabad the winter rains injured the crop.

The area under mustard in Assam was small and the yield inferior owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite bad in the Panjab, Sind, the United Provinces and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95 when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northern India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other hand, was more or less contracted everywhere except in Hyderabad and the contraction was very material in the Panjab, the United Provinces, Bombay, and Sind. The harvest, however, was good on the reduced area in the United Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a good crop.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In northern India the winter rains were timely and sufficient and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

The area sown with linseed was greatly contracted in the United Provinces, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at sowing time. The yield was also bad especially in the Central Provinces and Berar, while in Bombay the crop almost entirely failed. In Bengal and the United Provinces the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the United Provinces. The harvest was generally fair. The short rainfall in Assam was unfavourable for sowing mustard and the yield was affected by the absence of rain during the period of growth.

1897-98

Conditions in the Panjab, the United Provinces, and Bengal were favourable at sowing, and although the area sown was restricted, except in the Panjab where the acreage under rapeseed was increased, the yield was good.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapseed crop, however, did better in Bombay and Sind.

The mustard crop in Bengal and Assam was reduced in consequence of retarded sowings and deficient winter rains.

1898-99

In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage.

In the United Provinces excessive moisture at sowing time and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; and injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda) in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places.

1899-1900

In the Panjab the early cessation of the monsoon, the dry autumn months, and the lateness and deficiency of the winter rains, had the natural result of diminished sowings and restricted yield of rapeseed. In some places no yield at all was obtained, the crop having been cut when green and eaten as a vegetable by the people or given as fodder to the cattle.

In the United Provinces excessive rain in June and July was followed by a material deficiency in August and September, and the three following months were exceptionally dry; fortunately rain fell about the middle of January and did much good to both linseed and rapeseed.

In Bengal the season was not favourable to the cultivation of oilseeds. The rainfall in the autumn months was in defect, and the want of rain was felt in many districts at the time of sowing, while an excess in others interfered with the proper germination of the seeds. The usefulness of the rain which fell in January was qualified by the injury done in some places by hail.

In Assam the late subsidence of the floods, combined with the late cessation of the rains, interfered with timely sowings, but the yield was good owing to favourable weather after the crop was sown.

In the Central Provinces, the want of moisture in the soil at sowing time, and the absence of the winter rains, told upon linseed seriously. Germination was exceedingly defective, and the plants which came up yielded but little seed.

In Berar also linseed was a disastrous failure. Even the best black soil failed to retain enough moisture to nourish the crop, and the plants withered before reaching maturity.

In Bombay linseed was a complete failure in Gujarat, no sowings being possible in consequence of the failure of the rains. In the Deccan and other parts of the Presidency, the conditions were hardly better. The rapeseed crop was also practically a complete failure, some return having been obtained only in Cutch.

In Hyderabad which is subject to climatic conditions resembling those of Berar and Bombay, linseed, rapeseed, and mustard all did very badly.

1900-01

In the Panjab the season was most favourable for rapeseed. The monsoon rains were abundant and the winter rains fall at opportune intervals, both for sowing and maturing. The area under the seed was more than double the average, and the yield very large.

In the United Provinces the moisture in the soil was ample at the sowing season, and consequently the area sown was extended. But the excessive and prolonged continuance of the rain and cloudy weather generated fungoid diseases, and the crop was seriously affected by them in many districts, the yield in the localities affected being hardly more than half the normal crop.

In Bengal the monsoon rains were fitful and irregular, falling in abnormal quantity towards the end of the season, while the winter rain in January and February was also much in excess of the normal. On the whole the season was unfavourable to the oilseed crops, which suffered from an excess of rain in many districts and from comparative drought in others.

In Assam the mustard crop suffered in most districts from the absence of rain during the period of growth.

In the Central Provinces the continuous rain during August and September interfered with the preparation of land, whilst the absence of the usual October showers was unfavourable

OILSEEDS

to sowings in some districts. Germination was generally good, and except in Nagpur, prospects were favourable until the continued cloud and rain in January and February induced rust which caused great injury. The unfavourable conditions after January told seriously upon linseed.

In Berar the area sown with linseed was far below the average. After the year of famine during which both food-stocks and credit were exhausted, the general inclination of the cultivators was to obtain as early a crop as possible, and larger areas were devoted to the autumn crops, notably jawar and cotton. The monsoon rainfall was in excess of the average, but the ground had been so thoroughly parched by the failure of the rains of 1899 that the moisture was rapidly absorbed and was inadequate for the successful growth of linseed. No rain fell after sowings had been completed, the rain of January came too late to be of any material benefit, and the yield was poor.

In Bombay linseed is mostly grown in the Deccan and Karnátak, and in both tracts the crop suffered so greatly from the absence of moisture owing to scanty rain as to be an almost complete failure. Rapeseed did better in Gujarat, but this crop is of much more importance in Sind where the area sown was in excess of the average and a fair yield was harvested.

In Hyderabad an extensive area, not materially smaller than the average, was placed under linseed, but the conditions of the season were unfavourable, as in Berar.

1901-02

In the Panjab the monsoon rain ceased early and was not as abundant as usual. The winter rains failed entirely, and high winds and severe frosts in February proved detrimental to the crop which was only saved from destruction in some places by slight showers in March. Owing to the absence of rain in the sowing season, a very small area was sown with oilseeds, while sources of artificial irrigation were devoted chiefly to superior crops. The crop on unirrigated lands gave extremely poor results generally and failed entirely in several localities. On irrigated lands also the crop was below the average.

In the North-West Frontier Province, as in the Panjab, the season was most unfavourable for rapeseed. There was a decline in the area sown owing to the failure of the winter rains and to the short supply of irrigation from canals and hill torrents.

In the United Provinces the autumn rains in the latter half of the season were insufficient in the Meerut division, and in parts of the Agra and Rohilkhand divisions; in the rest of the provinces conditions at seed-time were less unfavourable. The winter rains were scanty, only light rain having fallen towards the close of December and the beginning of January. Linseed is generally sown after an autumn crop, and, as the soil was too dry for sowing without previous irrigation, the area sown with this seed declined largely; but the area and yield of rapeseed were larger than the average.

In Bengal the monsoon was weak, the deficiency being serious in the Bihar and Chota Nagpur divisions. On the whole, the season was unfavourable for oilseeds, especially in Bihar; and there was a decline in the area sown owing to drought in the sowing season.

In Assam the season was favourable for the mustard crop except for heavy rain at the end of November. The area sown was larger than usual, and the yield was almost equal to the average.

In the Central Provinces the absence of moisture in the soil at the sowing season and the failure of the winter rains told seriously upon the linseed crop. Germination was defective and the plants which came up yielded but little seed.

In Berar there was no winter rain, but the season was favourable for sowing, and in most localities the seed germinated freely and prospects were good; but considerable injury was done by rats, and these prospects were not realised.

In Bombay the absence of moisture severely injured the linseed crop, and its ruin was completed by rats, which destroyed nine-tenths of the crop in Khandesh. As regards rapeseed, the conditions in Sind where the crop is mostly grown were fairly good, but in Gujarat the crop was almost a complete failure by reason of drought and the destructive activity of rats.

In Hyderabad the area was slightly smaller than the preceding year, but a little larger than the average. The yield was smaller than the average owing to the unfavourable character of the latter part of the monsoon.

1902-03

In the Panjab the late continuance of the monsoon was favourable for sowings, and an extensive area was sown; but the failure of the winter rains caused wide-spread injury, and though good rain fell from March 10th onwards, this was too late to benefit rapeseed to any considerable extent. Insects also did great harm in places.

In the North-West Frontier Province the season was on the whole favourable for the rapeseed crop. But considerable injury was done to the crop in Hazara and Kohat by heavy rains at harvest time which blackened the stalk and damaged the seed.

In the United Provinces the autumn rains were seasonable and there was sufficient moisture in the ground when the crops were sown. November and December were entirely rainless and were followed by severe frost. The first winter rains in the last week of January generally benefited the crops. After that there was practically no rain. As in the case of

wheat the dry season was very favourable to the oilseed crops, though in some districts in the west slight damage was reported from frosts and hot west winds.

In Bengal the monsoon rains were generally plentiful, but terminated abruptly in September. In that month there was good rain in Bihar and Chota Nagpur; in north Bengal the fall was greatly in excess of the normal, while elsewhere it was, on the whole, slightly in defect. October was unusually dry, and the following two months were practically rainless. The drought continued through January in Bihar and east Bengal, while elsewhere there were seasonable showers. General but scanty rain in February slightly benefited the crops. There was, however, very little rain during the next two months, except in a few districts of east Bengal, and on the whole the season was not favourable.

In Assam, the partial loss of the rice crop caused by floods induced people to sow mustard more largely than usual. But for want of rain during the season of growth and other unfavourable causes, the character of the crop was much below the average in many districts. The increased area sown, however, made up for the poor outturn of the crop.

In the Central Provinces the early cessation of the monsoon rainfall contracted sowings; germination was defective for want of moisture, and the crop which came up suffered from the continued drought. In the northern districts, where conditions were not unfavourable at sowing time, some damage was caused by frost and insects.

In Berar the decrease in the area sown was attributed to the repeated failure of the late rains during past years, which induced cultivators to allot more land under monsoon (*kharif*) crops. There were good showers in November and December which improved the outturn.

In Bombay there was a decline in the area sown with linseed in the Deccan and Karnátak and the crop was affected by rust and disease in places owing to excessive rain, and also from want of sufficient moisture. In Gujarat the crop was fairly good. As regards rapeseed, the crop in Gujarat suffered slightly from frost in Baroda; elsewhere it was fair. In Sind there was a decrease in area owing to low inundation; but the condition of the crop was fair.

In Hyderabad there was a temporary withholding of the rains at the commencement of the season, but the conditions afterwards turned very favourable.

1903-04

In the Panjab owing to favourable conditions at sowing time an exceptionally large area was placed under rapeseed. The failure of the winter rains in the south-eastern districts seriously affected the crop. In all other districts conditions were favourable throughout; and the crop on the whole was a bumper one.

In the North-West Frontier Province conditions were unfavourable for sowing, except in Dera Ismael Khan where hill torrent irrigation was unusually favourable and allowed of an exceptionally large area being sown. The general rain at the end of December and in January were most beneficial to the crop. The rains during the subsequent months were ample and well distributed, and the crop came to maturity in an unusually good condition.

In the United Provinces moisture was excessive and in some places the crops were sown late. Linseed is generally sown after an autumn crop, and as moisture was ample a very large area was devoted to its cultivation. The area under rapeseed, however, slightly fell off. November and December were dry; but light rain in the middle of January greatly benefited the crops. In some districts in the eastern half of the province linseed was attacked by an insect pest, but the damage done was not serious.

In Bengal the heavy rainfall of October was on the whole beneficial to winter oilseeds, though it was reported to have injuriously affected the crops in some districts. There were light showers in November, except in Bihar, where owing to want of rain in November and December, the crops suffered. Throughout Bihar and north Bengal, however, light showers were obtained in January, and in February the showers throughout the province were fairly copious. March and April were practically rainless and this facilitated harvest operations. On the whole therefore the season was favourable.

In Assam the season was not altogether favourable to the mustard crop. In the Surma Valley and parts of Lower and Central Assam, cultivation was to some extent impeded by heavy rain and consequent floods at the commencement of the sowing season. Want of rain was subsequently felt over the greater part of the mustard-growing area.

In the Central Provinces and Berar, sowings, though somewhat late owing to the heavy and continuous rainfall during August and September, were successful over increased areas in the important linseed-growing districts. But the absence of the winter rains and the unfavourable conditions during the end of February and the beginning of March told seriously upon the crop. The cloudy weather which preceded the February rain caused the flowers to wither before the seed was set, and also favoured insects which damaged the crop considerably in some districts.

In Bombay a very extensive area was sown with linseed. The increase was due to larger sowings of wheat and jawar with which the oilseed is sown mixed. The crop was fairly good everywhere, though excessive late rains induced disease and rust in places. As regards rapeseed, in Gujarat there was a decrease in area as well as in yield owing to deficient late rains. In Sind the inundation was favourable and the outturn good.

In Hyderabad owing to excessive rain autumn sowings suffered considerably and winter sowings had to be suspended. Nevertheless, the area placed under both linseed and mustard was much larger than in the preceding year. Severe cold and insects, however, injured the crops in places.

OILSEEDS

1904-05

In the Panjab the season was favourable for sowings except in some of the central and south-western districts where water-supply was deficient. The severe frosts of January and February were, however, disastrous to the crop almost everywhere.

In the North-West Frontier Province, conditions were unfavourable at sowing time except in Hazara and Peshawar where the monsoon and autumn rains were favourable. The crop was, however, at one time threatened with extinction by severe frosts, but it rallied under the influence of copious rains in March followed by bright settled weather in April.

In the United Provinces conditions were very promising till the end of December, but the crop suffered severely from the frosts of January and February, and where it survived the frost, was badly attacked with rust. The rapeseed crop was also damaged by insects.

In Bengal the season was on the whole an unfavourable one for oilseeds. The crop was seriously damaged by hail, frost, and rain chiefly in the districts of Bihar and the Rajshahi Division where the bulk of the crop is grown. The excessive rainfall of March and April also hampered the progress of harvesting operations.

In Assam the season was not unfavourable, but a somewhat restricted area was sown. The crop was fair.

In the Central Provinces and Berar the delicate linseed crop was unable to support the unusual inclemency of the season. In the northern districts frost in early February damaged the crop seriously; later the cloudy weather and rain storms in the end of February and beginning of March carried a step further the destruction already caused in the north and did serious damage in most of the southern districts. Insects and rust appeared in places, and the deficiency of the winter rains and damage caused by hail in Berar resulted in a lighter crop in that part of the provinces.

In Bombay an extended area was placed under linseed, but the crop suffered from excessive cold and frost in Gujarat and from deficiency of moisture in the Deccan and Karnátak. As regards rapeseed the area contracted owing to low inundation and deficient water-supply and the crop suffered, particularly in Sind, from excessive cold and frost.

In Hyderabad the area sown with linseed was much larger than in the preceding year, but the crop was somewhat affected by the failure of late rains.

Sesamum (til or jinjili)

1891-92

In the Panjab the season was decidedly unfavourable, the late arrival of the monsoon causing a reduction in the area sown. The crop was damaged by locusts, and the yield was very poor.

In the United Provinces the monsoon rain was quite abnormal, light in the beginning, but excessive at the latter end of the season. The area and yield were both small.

In the Central Provinces the season was unfavourable and sowings were greatly restricted. The crop was very poor.

In Berar excessive rain and insects injured the crop, though its condition was favourable in some districts owing to sufficient and seasonable rain.

In Bombay the rain at sowing time was favourable, but the growing crop suffered from drought as well as from excess of moisture in places. In Sind a low inundation and locusts affected both area and yield.

In Madras the area and yield were reduced by the unfavourable character of the season.

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July, stimulating sowing. The yield was very good.

In the United Provinces sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop.

In Berar unfavourable rain and the rotation of crops caused a decrease in the area sown. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In Bombay there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was better than in the preceding year. In Sind the harvest was bad.

In Madras, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the sown area; but the yield was small.

In the United and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the United than in the Central Provinces.

In Berar the early sowings were impeded by deficient, and the latter sowings by excessive, rainfall; and excess of rain in September injured prospects.

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was not good. In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop good.

In Hyderabad the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield.

In the United and Central Provinces the season began well, but injury was afterwards done by excessive rains, especially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the United Provinces the loss occasioned by the rains was considerable.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower, and the yield was generally poor.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was deficient owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower. In Sind with favourable rain and extensive inundation the yield was fairly good.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The early cessation of the north-east monsoon rainfall restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was very poor.

1895-96

In the Panjab the rainfall was unfavourable, and the crop on the whole was poor.

In the United Provinces the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, but the season became adverse later by reason of deficient rain and the abnormal heat which prevailed to the end of November.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was bad.

In Bombay a large area was sown, the rainfall being seasonable, but the crops, both early and late, suffered from want of moisture. In Sind scanty rain and a low inundation curtailed the area, and the young crop suffered from want of moisture.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average, on account of the excessive sowing of the early crop. Rain was too heavy in some places, while it was deficient in others, and the yield from both crops was bad.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor.

In the United Provinces the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands.

In the Central Provinces the area sown was large, but the crop generally fared bad except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly.

In Bombay, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended from timely rain. The former

OILSEEDS

crop suffered severely from drought, and the result was a poor yield. The latter did not suffer as much.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food-crops accounted for a contraction of the area sown in most provinces.

The yield varied greatly from about an average crop in Bombay, the United Provinces, and the Panjab, to greatly below the average in Madras, Sind, and Hyderabad.

In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the United Provinces the area sown was restricted, and excessive rain towards the latter part of the season deteriorated prospects.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time.

In Berar sowings were made under favourable seasonal conditions, and, though the crop was injured by the failure of the late rains, the yield was large.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere, which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was large.

In Madras the season was favourable for the late crop, and it grew in good conditions on an extended area. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded a poor crop.

1899-1900

In the Panjab the season opened very well, but became more unfavourable as the months passed, and the yield was small.

In the United Provinces the excessive rainfall in the beginning of the season gave rise to apprehensions regarding the prospects of the crop, and later the crop was damaged by continued drought in the Meerut, Agra, and Rohilkhand divisions, where, however, *til* is not extensively sown. In the tracts in which the cultivation of *til* is important the moderate rainfall of August and September proved very beneficial and the yield there was good.

In Bengal on the whole the season was good enough, though the rains were irregular, excessive in some places, and insufficient in others; and the yield was larger than the average.

In the Central Provinces the season favoured sowing operations, but it did not continue favourable, and the abnormal heat of November did much injury. The early crop was fairly successful, but the cold weather *til* in many places began to wither when on the point of maturity.

In Berar the crops withered under the drought and the excessive heat which followed.

In Bombay the early rains were scanty and the later rains failed entirely. Owing to the extremely unfavourable nature of the season the crop withered away in many places, and where it survived gave the poorest yield.

In Madras the area sown was restricted, the south-west monsoon being unfavourable in most places, and the yield was not good.

In Hyderabad the rains failed, and the crop withered under the drought which followed some good rain in September.

1900-01

In the Panjab the area sown was much below the average, heavy floods in some districts restricting sowings.

In the United Provinces the monsoon began late and was generally scanty and unevenly distributed until the third week of August. Then and in September, excellent rain fell, and its distribution was all that could be desired, especially in Bundelkhand, which ordinarily contains four-fifths of the whole area under sesamum. Except for heavy falls in Benares and Gorakhpur in the second week of October, the weather during that month and November was clear and seasonable.

In Bengal the monsoon rainfall was capricious and irregular, and, on the whole, the season was not favourable for oilseeds, which suffered from an excess of rain in any tracts, while in others they suffered from drought.

In the Central Provinces the conditions at the time of sowing, both of the early and late varieties, were generally favourable and a large area was sown. Sesamum is a cheap crop to sow, and it resists drought better than most crops. The difficulty of obtaining the relatively

expensive seed of wheat and other spring crops stimulated its cultivation. The early crop suffered somewhat from the heavy rain at the close of August and during September. The germination of the late sown crop, which is more extensively grown in the south of the provinces also was irregular, heavy rain just after sowing having washed away part of the seed. Drought during October and November, abnormal heat, and insects, following on cloudy weather, also injured the crop. In consequence the yield was smaller than the normal.

In Berar the rains at sowing time and the monsoon rains were favourable; there was no prolonged break, and the crop developed well under congenial climatic conditions.

In Bombay the conditions were good in Káthiáwár at the time of sowing, and double the average area was sown, the increase there and in Gujarat more than making up for the contraction in other parts of the Presidency caused by the preference of cultivators for the cultivation of food-grains.

In Madras the conditions were not good, and though a large area was sown the crop was deficient.

In Hyderabad a few seasonable showers in January, which were badly needed, improved prospects.

1901-02

In the Panjab and the North-West Frontier Province the rainfall at sowing time was unevenly distributed, being excessive in some districts and insufficient in others. The yield was below the average owing chiefly to the early cessation of the monsoon rains.

In the United Provinces rain commenced late, about the 10th of July; the weather in August was favourable and the rainfall above the normal in most districts; a break ensued early in September; but at the end of the month heavy rain was received in the greater part of the province. The rainfall of October was deficient. November was practically rainless. Sowings were late, the drought in September retarded growth, and deficient rain in October caused further injury.

In Bengal there was no rain in December and January, and the winter crop suffered severely in consequence. A very restricted area was sown owing to drought at sowing time.

In the Central Provinces the rainfall was very unfavourable. The early sown variety suffered, especially in the north, from excessive rain, the crop being washed out in places while weeding was retarded or altogether prevented. The conditions were still more unfavourable for the late sown crop, which is put down at the end of August or during the first week of September. Continuous rain at this time interfered with sowings and much of the seed sown was washed out by heavy showers. Germination was very defective and many fields were ploughed up and devoted to other crops. A prolonged break subsequently occurred during which the young plants that germinated languished from want of proper moisture, and some injury was also caused by insects.

In Berar the monsoon rains were heavier than usual and the crop suffered from excessive moisture; during July and August the rainfall was almost continuous, and weeding operations were rendered impossible. Rats and locusts also attacked and injured the crop.

In Bombay the increase in the area sown in parts of Gujarat and Karnátak, due to favourable rains for sowing, was not sufficient to counterbalance the large decrease elsewhere, resulting mainly from the scantiness of sowing rains in the Presidency proper and to a low inundation in Sind. In Gujarat the season was very unfavourable owing to the failure of the late rains, while rats and locusts did some injury in places. In the north Deccan, too, the crop suffered to some extent from the same causes, while in Sind it was affected by a deficient water-supply.

In Madras in the Circars, the Deccan districts, and the west coast the sowings were about up to the average, but owing to the unfavourable season they were very deficient elsewhere, especially in the Carnatic.

In Hyderabad the area was above but the yield below the average, the late rains having been unfavourable.

1902-03

In the Panjab there was an increase in the area sown owing to seasonable rainfall and the low floods in the riverain tracts which facilitated cultivation in lands usually inundated. In Ferozepore, Montgomery, and Jhang however there was a marked falling off owing to deficient moisture at the time of sowing. The outturn was good in Gujarat, Lahore, and Ambala. Elsewhere it was only average or below average owing to a break in the rains of July and August. The crop was also attacked by insects in places.

In the North-West Frontier Province the crop was above the average, both as regards area and outturn.

In the United Provinces the rains set in rather late in the first week of July and continued till the close of the month. In the first and the last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the provinces. The rainfall of September was almost uniformly excellent. Light but insufficient rain was also received in October in most districts, November was entirely rainless. The season of light rainfall was in general favourable to the sesamum crop.

In Bengal the monsoon rains ceased early and the drought continued through January in Bihar and east Bengal, while outside that area there were seasonable showers in all the chief oilseeds-growing districts except Murshidabad. There was general and beneficial rain in February and March, but, on the whole, the season was not favourable.

In the Central Provinces the monsoon though late was favourable both for the sowing and the growth of the early variety. The late variety was sown under fairly favourable conditions and germination was good. But afterwards conditions were less favourable and there was some deterioration.

OILSEEDS

In Berar the rains began late and sowings were undertaken later than usual, but subsequently the season was favourable. Although the rainfall generally was below the average, the showers were timely, and the crop was in a thriving condition. Unfortunately when harvest operations commenced at the end of October the weather again turned wet and considerable damage was done to the crop.

In Bombay the monsoon broke much later than usual and did not permit full sowings of the early crop. For the late crop, however, the season was favourable and extensive sowings made up the deficit under the early crop. Though the crop suffered at first a little by a prolonged break in the middle of the season and later on the reaped and ripe crop was somewhat damaged by excessive rain, the season on the whole was favourable. The area and outturn were both deficient in Sind.

In Madras owing to seasonable rainfall an extended area was sown, and the condition of the crop was generally fair.

In Hyderabad the crop was unfavourably affected in places, but nevertheless the total yield was the largest recorded in the territory.

1903-04

In Bombay owing to favourable sowing rains an extended area was placed under sesamum, especially in the Gujarat States. Though the crop suffered in parts of Gujarat from locusts, in the east Deccan from deficiency of moisture, in the Karnátak and Konkan from excessive rain, and in Sind from blight and insects, the season on the whole was fairly satisfactory.

In Madras the rainfall at sowing time was seasonable, and the condition of the crop generally fair.

In the Central Provinces the rainfall during August and September was exceptionally heavy and continuous. This interfered with weeding operations and the growth of the early sown crop, besides impeding the sowings and germination of the late variety. Heavy showers in October considerably damaged the young plants, some fields being ploughed up, and materially deteriorated the prospects of the crop.

In Berar the damage caused by heavy rain was greater than in the Central Provinces.

In Bengal the season was on the whole favourable, though the crop was injuriously affected by the heavy rain of October in some districts and by the want of rain in November and December in some others.

In the United Provinces the crop at first suffered somewhat from the heavy rain of August and September, but the damage caused by the excessive rain of October and the strong winds that accompanied it was great.

In the Panjab damage was reported from floods and late rains, but fortunately the crop in the important districts was not much affected.

In Hyderabad the crop suffered to a considerable extent owing to heavy rains, although an extended area had been brought under cultivation.

1904-05

In Bombay the area sown was much below that of the preceding year owing to deficiency of rain in the Presidency proper and low inundation in Sind. The early crop suffered through the prolonged break after sowing, but a portion was saved by the late September rains which also induced sowings of the late crop. This started well, but suffered equally with the early crop owing to the absence of subsequent rains.

In Madras also a restricted area was sown owing to want of timely and sufficient rainfall. The condition of the crop was, however, generally fair.

In the Central Provinces and Berar the season was unfavourable. The sowing of the early crop was delayed in some districts owing to the lateness of the monsoon. Subsequently heavy and continuous rain and then a long break checked the growth of the plants and interfered with late sowings. The crop was detrimentally affected by the droughty conditions that prevailed and the damage caused by locusts.

In Bengal the season was not unfavourable at the beginning, but the crop was afterwards damaged by hail, frost, and excessive rain.

In the United Provinces sowings were delayed and restricted owing to excessive rain. The crop suffered from excess of rain at the beginning and from drought at the end of the season.

In the Panjab also sowings contracted on account of the late arrival of the monsoon in most districts and its failure in the Central Panjab. The crop suffered from want of sufficient moisture and the yield was unsatisfactory in all but three districts.

In Hyderabad the season was unfavourable owing to insufficient rainfall in the early months of the monsoon, coupled with failure of the late rains.

JUTE

1891

The rainfall at sowing time was excessive, and the area placed under the crop was smaller than in the preceding year. Germination and growth were also affected by excessive rainfall. Later, again, the want of rain was felt in several districts.

Excessive rainfall injured the plant in some districts, but on the whole the season was good, and a larger area was sown under the stimulus of high prices. *1892*

The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season. *1893*

Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first-half of August the fall was favourable in every district. *1894*

The rainfall was in excess of the normal quantity in April and the first-half of May, heavy in the second-half of May in east Bengal, and less than the average in other parts. In the next two months it was deficient, and in the first-half of August it continued deficient in central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger. *1895*

Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts. *1896*

On the whole the season was favourable, and there was enough water for steeping. *1897*

The area sown was smaller than in 1897, owing partly to the unfavourable character of the season at sowing time and partly to the low prices of jute in 1897 and to high prices of food-grains. *1898*

The weather, though seasonable in the beginning, became extremely unfavourable towards the end of the season. *1899*

There was some deficiency of rain in March and April, which prejudicially affected sowings in a few places. In May and the first fortnight of June, the rainfall was also light, but good rain later greatly improved the prospects of the crop. In July there was heavy rain in most districts, but a partial drought followed in August which, combined with a want of floods water from the rivers, hampered steeping operations in north and east Bengal, and in a few cases diminished the yield. Fair rains fell in the first-half of September, but almost too late to have much effect on the yield. *1900*

The rainfall in the earlier months of the year was almost uniformly unfavourable. In June there was heavy rain in almost all the important jute-growing districts; in July the rainfall was very irregular but not seriously deficient; the rainfall of August was again capricious, and was in considerable defect in some important jute-growing districts. There was heavy rain early in September, and thereafter it was fine and hot. On the whole, the weather was unfavourable up to the close of May, but it was exceptionally favourable afterwards. *1901*

In Bengal the season was abnormal. A prolonged drought ended in the middle of March. In April and May the rainfall was excessive, especially in the Dacca and Tippera divisions. In south-eastern Bengal the weather was, therefore, very unfavourable for sowings, and to a less extent this was the case also in north-eastern Bengal. The heavy rain in May also retarded weeding. Since then the weather conditions were normal, but the prospects of the crop were not encouraging. *1902*

In Assam the weather was unfavourable at the beginning of the season, and the adverse influences persisted to the end. The crop was injured by excessive rain and flood.

In Bengal rainfall was deficient at the time of sowing, but later on conditions improved owing to the favourable rainfall in August. On the whole the season was generally a favourable one. *1903*

In Assam the season was unfavourable at the beginning owing to drought in April and May, but subsequently weather conditions turned favourable, as was the case in Bengal.

JUTE
1904

In Bengal an extended area was placed under the crop. In the early part of the season excessive rain damaged the crop in the most important jute-growing districts. In other districts the weather was generally favourable, though weeding operations were hindered by heavy rain in places.

In Assam the season was very unfavourable. Heavy rain in April and May accompanied in places by floods and hailstorms greatly diminished the area sown and seriously affected its prospects.

INDIGO

1891-92

In Bengal the season was altogether disastrous in consequence of an unusual deficiency of rain, and although the weather was more favourable at the manufacturing season, the yield was hardly increased.

In the United Provinces the rains commenced very late and were heavy and continuous, causing a reduction in the area sown. The excessive drought in June and July seriously tried the crop, while the continued wet weather of August prevented the proper development of dye in the leaves.

In the Panjab the late arrival of the rains, and the ravages of locusts in some places, reduced the area and the yield.

In Madras the area and yield were seriously affected by an unfavourable season.

1892-93

In Bengal the season was unfavourable at sowing time owing to deficient rain in autumn and spring; conditions improved later with favourable rain, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused injury.

In the United Provinces the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In the Panjab a protracted drought in the early summer retarded sowings, and the area sown was very much reduced.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December

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1893-94

In Bengal the rainfall was favourable at sowing time, and a large area was sown, but heavy and incessant rain and floods caused great injury.

In the United Provinces a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a good yield.

In Madras larger sowings were made owing mainly to timely rains.

1894-95

In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In the United Provinces although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second-half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In the Panjab the area sown was increased, and the crop was good.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most places.

In the United Provinces the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In the Panjab the crop was fair.

In Madras the season was favourable in Kistna and North Arcot where a large area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The yield generally was fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the United Provinces germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair. Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield small.

1897-98

In Bengal the area sown was small, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the United Provinces the season was not favourable; the growth of the plants was interfered with, early in the season, by excessive heat and insufficient rain, and the heavy rain of July and August flooded the low lands and greatly injured the indigo growing on them.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good.

In Madras the area sown was small, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food crops.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar.

In the United Provinces the season was not favourable. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

1899-1900

In Bengal the season in the beginning was not unfavourable, but the excessive rain which fell in June, July, and August was most injurious, and the crop was also injured in many districts by the floods which followed the excessive rain.

In the United Provinces the crop continued in good condition until the end of June, but excessive rain fell in July and seriously injured the plant everywhere, especially in the eastern districts. The rains then fell away and drought, particularly in the Agra and Meerut divisions, added to the injury done by heavy rain.

In the Panjab the crop suffered from the absence of rain and the stoppage of canal irrigation in Multan and Dera Ghazi Khan. In some unirrigated tracts it failed entirely.

In Madras also the season was generally unfavourable and the yield deficient.

1900-01

In Bengal sowings and the early growth of the crop were retarded by the scanty rain of April and May. Fairly good rain in June and July was followed by an interruption in August, but prospects were improved in Bihar by abundant rain in September, which, however, was accompanied by floods and consequent injury to the crop in Lower Bengal. In October sufficient rain fell, and the season generally was much better than that of 1899. The area, however, was restricted, owing to the substitution of other crops for indigo in north Bihar under the discouragement of the comparatively low level of prices during the preceding three seasons. The yield on the whole was good in the districts of north Bihar, but very poor in Lower Bengal where, however, the cultivation of indigo is now greatly restricted.

In the United Provinces, unlike Bengal, the area sown increased, the increase being ascribed to the temporarily improved prices in the previous season. It may be that that improvement was an inducement to native growers of indigo, while it did not remove the discouragement to European planters. In the early months of the season prospects were good, but heavy rain in the Doab towards the end of the season reduced the yield.

In the Panjab the rains were late at sowing time, but the crop did well later when the rain came down abundantly.

In Madras the high prices of food-grains induced cultivators to restrict their sowings of indigo. The crop sown was very fair on the whole.

1901-02

In Bengal the season was on the whole unfavourable. During the early months of the year the rainfall was in slight defect, but in May there was good and generally well distributed rain. The monsoon rains broke late and were deficient in June and July. There was little

INDIGO

rain in October, and the showery weather at the end of November did not extend to north Bihar. Besides the unfavourable character of the season, the area was affected by the fall of prices resulting from the competition of synthetic indigo.

In the United Provinces the reduction of area was proportionately much greater than in Bengal. The prospects of the crop, which had been affected by the late arrival of the monsoon, continued to be unsatisfactory until the end of August, but fine dry weather in September favoured manufacture.

In the Panjab a restricted area was sown owing to late inundation from canals in the south-western districts and the closing of factories consequent on the fall in prices. There was an insufficiency of rain and canal irrigation after the sowings, and some injury was done by locusts.

In Madras an extended area was sown in Nellore and Kistna owing to favourable weather for sowings, but almost everywhere else the cultivation of indigo continued to decline. The low prices realised, and the high prices of food-grains, are the principal reasons assigned for the decrease, but in the Carnatic, where the decrease was marked, the season was very unfavourable.

1902-03

In Bengal the season was generally very unfavourable owing to capricious and ill-distributed rainfall; and the outturn was the worst on record. The unfavourable prospects of the industry caused by the competition of synthetic indigo also contracted the area, which had been steadily diminishing in past years.

In the United Provinces the decline in the cultivation of indigo caused by the fall in prices was very rapid and pronounced. The late commencement of the rains stunted the growth of the plant, which was further retarded in places by the continuous rain of July. The dry weather during August was, however, favourable and the produce of dye was reported to have been satisfactory.

In the Panjab the decrease in the area under indigo was almost as great as in the United Provinces, the contraction was due largely to the small margin of profit left by the fall in prices, but partly also to the insufficiency of canal water and unfavourable weather.

In Madras also the cultivation of indigo was fast declining as the low prices realised caused preference to be given to food crops and earthnut. The crop was reported to be generally good.

1903-04

In Bengal the season opened unfavourably the rainfall being very insufficient, but later good rain was received, and thenceforward the conditions were favourable.

In the United Provinces the monsoon was unusually late in arriving, and general rain was not received till the end of the third week of July. Injury from drought was therefore reported from some places; but the rains, when they did come, were good, and the damage was much less than had been anticipated. In the Doáb, where the crop was promising from the beginning, the yield was satisfactory. Elsewhere it was not so good.

In the Panjab there was an extension of cultivation due to timely running of the canals and seasonable rainfall. The condition of the crop was also good.

In Madras also owing to good and timely rainfall the cultivation of indigo showed a slight improvement, and the condition of the crop was reported to be generally good.

1904-05

In Bengal the season was very unfavourable. During the months of January to April June and September the rainfall was deficient; it was heavy in May and October, while in July and August the fall was excessive and did considerable damage to the crop in many districts of Bihar.

In the United Provinces sowings greatly contracted. Prospects were, however, good at the beginning of the season; but the heavy and continuous rain, which lasted from the second week of July to the last week of August, caused serious damage to the crop.

In the Panjab insufficiency of canal water interfered with sowing operations in most places. Conditions were, however, somewhat favourable in Multan resulting in an increased area being sown in that district. The conditi on of the crop was good.

In Madras the area contracted to about half of that of the preceding year owing to scanty rains and fall in prices. The condition of the crop was generally fair.

SUGARCANE

1899-1900

In Bengal the season was generally favourable to the crop at the beginning, but excessiv rain in some parts, in August, September, and October, advers ely affected prospects, while in a few places, the crop was injured by the absence of seasonable rainfall and by insects.

In the United Provinces the season was favourable until the autumn rains set in; but the excessive rainfall of June and July seriously injured it, and further injury was caused by the scanty rainfall of the succeeding months. Slight injury from insects was also reported from several districts.

In the Panjab the unfavourable weather conditions affected even the crop grown on irrigated lands, and cane grown on unirrigated land was practically a failure. The crop was stunted in growth and deficient in juice, while owing to the great scarcity of fodder, the cane was used entirely or very largely in many districts as cattle-food.

In Madras the weather in many places was unfavourable, and some of the crop suffered from want of water, especially in the Circars.

1900-01

In Bengal the rainfall to the end of July was generally in defect; in August it was badly distributed and more or less deficient; in September it was copious and general; there was very little in October, and in November and December practically none. On the whole, the monsoon conditions were not very favourable to the crop, which also, in a few districts, suffered to some extent from insect pests.

In the United Provinces the rains of February and March favoured sowings, and the crop germinated freely. Hot winds and afterwards insufficient rain in June and July retarded growth; but the crop was generally very healthy and promising. The rainfall was moderate in August, but unusually heavy in September, and accompanied by high east winds. Floods also caused some local injury on low lands. On the whole the autumn rains greatly benefited the crop. November was rainless, but December and January were exceptionally wet; and cane-pressing was delayed in places by excessive rain.

In the Panjab the area under cane was slightly reduced, owing to dry weather at sowing time in April and May and to the fact that prices of food-grains were so high that it was more profitable to grow them than sugar on some lands. In Hoshiarpur, one of the chief cane-producing districts in the province, another reason assigned for the decline was the supersession of indigenous by imported sugar. In Sialkot it was said that a great number of cultivators emigrated with their cattle to other places owing to the dearness of food and scarcity of fodder in the previous year, and as most of the cane crop was used as fodder in the preceding year, the supply of seed was small and the price high. Although there was, on the whole, a decline in the area under cultivation, both irrigated and unirrigated, the season was far more favourable than the previous year.

In Madras early rains and an adequate supply in tanks led to increased sowings. The condition and yield of the crop were generally fair.

1901-02

In Bengal, on the whole, the season was not unfavourable, but rain was very scanty in February, March, and April, and the crop suffered from locusts and insects in a few districts. In December and January again there was a complete absence of rain. The area sown was below the normal owing to the unfavourable character of the early part of the season.

In the United Provinces the rains of January and February 1901 were ample and germination was good, and the supply of water in the hot months was generally sufficient except in a few districts. Injury to the crop in several districts resulted from various causes—hot winds, insects, and the late arrival of the monsoon; but it was serious only in the Rohilkhand division and in parts of the Meerut division where the crop was attacked by grasshoppers. The autumn rain in July, though below the normal, was well distributed, and the rain in August was favourable and prospects improved materially, though the injury caused in the tracts mentioned could not altogether be made good. The season later on was too dry to give a full yield of juice. In the two important cane-growing divisions of Meerut and Rohilkhand the crop was unpromising from the beginning owing to the injury caused by grasshoppers, and the drought of September and October further affected growth. In the other divisions the yield was somewhat better.

In the Panjab the area under sugarcane increased in irrigated tracts, but elsewhere there was a contraction due to scanty rain in March and April. The crop suffered from insects, locusts, and rats, and seriously from drought in September and October and the severe frost that followed. The result was so bad that in parts of Gujranwala the juice was not extracted and the cane was given as fodder to the cattle. The crop on the whole was below the average and, compared with the area, the estimated yield was disproportionately small. Another reason assigned for the decline was the supersession of indigenous by foreign sugar.

In the North-West Frontier Province the crop was on the whole above the average. Though the failure of the rain at the time of its maturing caused some decrease in the yield, the decline was more than compensated by the increased area sown.

In Madras, on the whole, a full normal area was planted. Rainfall was deficient in some places; but the yield was on the whole fair, though in the Circars the crop was far from good and in the Godavari delta disease caused material loss.

1902-03

In Bengal the season was not generally unfavourable though excessive rain at the time of planting caused some contraction of area, and damaged the young plants in parts of north and east Bengal; while a few districts in Bihar, on the other hand, suffered from drought.

In the United Provinces the rains at sowing time—that is, February and March—were very deficient. Germination was, however, good except in the eastern districts, where later on drought and white-ants did further damage. The autumn rains in July were fairly continuous, well distributed, and generally above the normal. In the first and last weeks of August rain

SUGARCANE was fairly general, but in the second and third weeks there was a break over the greater part of the provinces, and in places some injury from drought resulted. The rainfall in September was almost uniformly excellent. Light rain was also received in October in most districts, while November and December were entirely rainless and were followed by severe frost, which damaged the crop more or less in the western half of the province just when pressing had begun.

In the Panjab there was a decrease in the area sown in all districts except Jalandhar and Karnál owing to the absence of rain and deficient supply in the canals in February and March. The monsoon rainfall of August and September was satisfactory, but the subsequent failure of the winter rains and the severe December frost deteriorated the condition of the standing crop, and in parts of Lahore, Sialkot, and Amritsár it was used as fodder. The yield on the whole was consequently below average.

In the North-West Frontier Province the season was favourable for the sugarcane crop, and the inadequate rainfall had very little effect on this crop as it is grown exclusively on irrigated lands, and the canal irrigation on which the crop depends was satisfactory.

In Madras there was a contraction in the area owing to the shortness of water-supplies in parts at the planting season. The decrease was general and was particularly noticeable in South Arcot where it was ascribed to a fall in the prices of jaggery. The crop was reported to be generally good.

1903-04 In Bengal, owing to the drought that prevailed throughout the greater part of the province in the early part of the season, the area contracted slightly. The cane-growing and harvesting seasons from June to December were, however, favourable and gave much better results than had been anticipated at first.

In the United Provinces the rains at sowing time,—that is, February and March—were very deficient as was the case in the preceding year. The crop, however, germinated well and the supply of water for irrigation was generally sufficient. Injury from hot winds and the very late arrival of the monsoon was reported from a number of districts; but the damage done was serious only in the Rohilkhand and Benares divisions. The rainfall of August and September was very favourable; but abnormally heavy and continuous rain fell in the first fortnight of October in most places. November was rainless, while trifling showers fell in parts of Rohilkhand towards the end of December. The prospects of the crop somewhat deteriorated in consequence of the heavy and continuous October rain, and the strong winds which accompanied it laid the cane which flowered in places. The juice was accordingly reported to be thin and the outturn of *gur* lower than usual.

In the Panjab conditions were favourable for sowing and the monsoon rains, although somewhat delayed, were satisfactory. Excessive rain, however, caused some damage to the crop in low-lying lands, more specially in the riverain tracts of Sialkot and Amritsar. The crop also suffered from winter frosts in Ambala. In two tahsils of Guzranwala it was reported that about three-quarters of the entire crop was consumed as fodder, while in another it was damaged by insects. But nevertheless an average yield was harvested.

In the North-West Frontier Province the season was favourable throughout except in Peshawar where the matured crop suffered to a certain extent from the heavy rains in January. The canal irrigation on which the crop depends was slightly deficient in the Nowshera tahsil of that district, where owing to an aqueduct being washed away, irrigation was interrupted for six weeks.

In Madras there was a contraction in the area sown owing partly to heavy rain at sowing time, but chiefly to the fall in the price of jaggery. The condition of the crop was reported to be generally good.

1904-05 In Bengal favourable conditions prevailed at the planting season, excessive rain however damaged the crop at the early stage of its growth in many districts, while drought generally prevailed in September and October. Some damage was also done to the standing crop by late floods in East Bengal and in Murshidabad, while the rest of the province continued to suffer from drought to the end of the season.

In the United Provinces the season was very favourable throughout. The rains in February and March favoured sowings and an extended area was sown. Germination was good and the supply of water for irrigation sufficient. The general rain in June was very opportune and greatly benefited the crop, which continued healthy and promising almost everywhere, although its full development was somewhat affected in places by insufficient rain in September. A succession of winter storms and cloudy weather in January, however, delayed pressing operations in some places.

In the Panjab general rain in March was favourable for sowings. The monsoon was late and unsatisfactory except in the south-east Panjab, but sugarcane being an irrigated crop did not suffer much from the deficiency in the rainfall. Insects appeared in Gujranwala and Sialkot, and a portion of the crop was fed to cattle. The severe frosts of January-February did harm in the North Panjab, but most of the crop had been removed before the cold wave set in. The outturn of *gur* was satisfactory.

In the North-West Frontier Province heavy rain in March interfered with sowings; but the rest of the season was favourable throughout, except that the intense cold of January-February much retarded the cutting and pressing of the cane.

In Madras a larger area than in the preceding year was placed under the crop owing to the early supply of water in the channels and the rise in the price of jaggery. The condition of the crop was reported to be generally fair.

Tables of Area and Yield

SUMMARY TABLE OF AREA AND PRODUCTION

			1891-92	1892-93	1893-94	1894-95	1895-96	1896-97
Rice	acres		49,539,031	48,358,707	49,525,300	50,002,241	49,396,747	48,021,462
	cwt		314,804,161	420,282,625	459,119,400	497,901,780	415,355,100	275,676,100
Wheat	acres		27,032,772	27,759,158	28,716,735	28,421,851	24,071,320	20,579,727
	tons		6,093,741	7,649,105	7,268,982	6,998,930	5,380,342	5,363,289
Cotton	acres		11,569,140	13,422,107	15,404,156	14,959,103	14,515,662	14,643,495
	bales (*a*)		2,386,276	2,318,028	2,556,537	2,239,019	2,882,042	2,651,597
Linseed	acres	pure	3,211,000	3,824,700	4,854,100	3,781,684	2,954,093	2,020,747
		mixed	545,000	604,000	503,000	603,000	560,000	345,000
	tons	pure	390,000	489,900	559,800	271,798	287,407	162,479
		mixed	97,000	94,000	65,000	53,899	82,462	58,504
Rape and mustard	acres	pure	1,175,100	3,674,900	3,676,000	3,582,181	3,004,913	2,910,682
		mixed	1,495,000	1,731,000	1,557,000	1,613,000	1,290,000	1,526,000
	tons	pure	175,272	622,580	546,216	521,031	462,064	441,814
		mixed	360,000	367,000	240,000	216,050	359,979	340,602
Sesamum	acres	pure	2,037,000	2,423,800	2,619,240	3,000,969	3,171,472	3,369,198
		mixed	551,000	407,000	509,000	448,000	560,000	672,000
	tons	pure	159,800	239,916	222,609	277,933	282,129	250,958
		mixed	32,000	40,000	50,000	40,000	55,000	45,000
Jute (*b*)	acres		...	2,135,142	2,222,600	2,264,300	2,242,700	2,196,600
	bales		...	5,717,400	5,001,700	6,144,300	5,551,000	5,717,000
Indigo	acres		...	1,218,766	1,552,008	1,688,042	1,414,002	1,608,901
	cwt		...	179,056	179,437	237,494	190,924	168,673
Earthnut (*c*)	acres	Bombay	...	...	...	...	...	148,726
		Madras	...	...	...	...	243,400	306,026
	tons	Bombay	...	...	...	...	...	...
Sugarcane	acres		...	...	...	...	...	...
	tons		...	...	...	...	...	...

(*a*) The production in bales for the years up to 1903-04 represents the quantities exported from India and consumed in the mills. For 1904-05 the reported estimate of production, which is greater than the total of exports and mill consumption, has been stated — see note (*e*) on page 38

(*b*) See foot notes on page 43 regarding the acreage and yield of jute

IN EACH YEAR FROM 1891-92 TO 1904-05

1897-98	1898-99	1899-1900	1900-01	1901-02	1902-03	1903-04	1904-05			
52,205,466	52,682,050	51,969,635	48,932,493	48,511,190	51,842,390	49,461,465	51,537,842	acres		Rice
498,350,700	505,640,600	451,553,460	413,506,700	384,294,100	469,484,800	439,280,700	436,114,800	cwt		
24,537,775	25,370,078	18,687,782	23,864,550	23,446,161	23,395,277	28,413,743	28,166,706	acres		Wheat
7,208,384	6,837,674	5,357,142	7,093,529	6,090,524	7,971,446	9,641,145	7,533,841	tons		
13,683,437	14,602,892	11,884,576	14,231,150	14,506,295	16,581,046	18,012,781	19,014,432	acres		Cotton
2,653,710	3,140,130	2,093,521	2,703,648	3,310,733	3,750,549	3,579,643	3,507,068	bales (*a*)		
2,707,887	2,829,475	1,648,903	2,417,991	2,546,604	2,592,237	3,609,079	3,635,567	pure	acres	Linseed
425,000	445,000	409,000	466,000	498,000	621,000	592,000	647,000	mixed	acres	
354,994	336,610	206,220	247,024	251,808	359,568	466,832	296,035	pure	tons	
90,276	91,284	89,464	79,000	100,113	122,000	105,000	49,000	mixed	tons	
3,822,996	3,109,988	2,693,768	4,077,366	3,082,662	3,421,883	3,583,445	3,625,867	pure	acres	Rape and mustard
1,459,000	1,509,000	1,381,000	1,449,000	1,461,000	2,335,000	2,429,000	2,509,000	mixed	acres	
682,807	567,698	447,946	650,225	525,035	521,926	623,206	539,764	pure	tons	
436,451	410,983	425,471	372,000	430,617	516,000	542,000	336,000	mixed	tons	
3,662,109	3,530,625	3,316,067	4,052,491	3,711,711	4,435,648	4,838,164	4,213,341	pure	acres	Sesamum
584,000	713,000	517,000	622,000	611,000	717,000	747,000	600,000	mixed	acres	
355,817	348,118	213,256	72,856	96,210	93,587	539,478	303,924	pure	tons	
60,000	70,000	60,000	75,000	60,000	80,000	70,000	35,000	mixed	tons	
2,151,600	1,624,400	1,961,800	2,093,400	2,263,800	2,142,700	2,275,050	2,899,700	acres		Jute (*b*)
6,839,000	5,334,000	5,412,000	6,526,000	7,438,000	6,577,000	7,241,000	7,400,000	bales		
1,339,099	1,010,318	1,026,900	990,375	791,190	645,511	706,634	473,757	acres		Indigo
166,812	139,320	111,890	148,029	112,819	79,207	102,802	56,200	cwt		
120,303	101,614	71,946	64,411	96,622	69,855	89,793	60,204	Bombay	acres	Earthnut (*c*)
94,500	116,200	102,000	229,997	337,600	421,300	384,400	365,900	Madras	acres	
55,962	70,561	9,250	28,631	63,298	61,854	94,419	43,036	Bombay	tons	
...	2,485,681	2,541,470	2,404,156	2,316,391	2,207,829	2,114,592	2,280,026	acres		Sugarcane
...	2,076,234	1,860,005	2,276,748	2,022,476	1,906,784	1,871,986	2,166,156	tons		

(*c*) The yield of earthnut in Madras has not been satisfactorily determined

Note.—The figures for 1904-05 are subject to revision

RICE

Province	acres	cwt	Province	acres	cwt
Bengal			*Burma*		
1891-92	39,552,008	284,804,161	1891-92	4,215,023	(a)
1892-93	37,324,907	333,956,225	1892-93	4,625,600	50,346,000
1893-94	37,886,500	374,227,800	1893-94	4,928,600	47,874,000
1894-95	38,639,500	416,857,200	1894-95	4,793,341	45,381,980
1895-96	37,447,600	317,514,600	1895-96	5,068,147	41,481,000
1896-97	36,177,400	179,637,400	1896-97	5,224,062	47,679,000
1897-98	39,549,500	398,142,000	1897-98	5,720,766	52,217,000
1898-99	39,605,400	405,842,900	1898-99	5,910,650	44,851,000
1899-1900	39,490,500	357,956,360	1899-1900	6,050,135	54,160,000
1900-01	36,013,900	311,508,600	1900-01	6,326,993	52,975,000
1901-02	35,094,800	272,201,900	1901-02	6,558,190	60,602,000
1902-03	37,553,700	358,977,300	1902-03	6,553,890	53,022,000
1903-04	34,931,500	316,669,700	1903-04	6,761,665	64,411,000
1904-05	37,895,200	331,977,100	1904-05	6,820,542	60,735,000
Madras			*Total*		
1891-92	5,771,000	30,000,200	1891-92	49,539,031	314,804,161
1892-93	6,408,200	35,980,400	1892-93	48,358,707	420,282,625
1893-94	6,710,200	37,017,600	1893-94	49,525,300	459,119,400
1894-95	6,569,400	35,662,600	1894-95	50,002,241	497,901,780
1895-96	6,881,000	56,359,500	1895-96	49,396,747	415,355,100
1896-97	6,620,000	48,359,700	1896-97	48,021,462	275,676,100
1897-98	6,935,200	47,991,700	1897-98	52,205,466	498,350,700
1898-99	7,166,000	54,946,700	1898-99	52,682,050	505,640,600
1899-1900	6,429,000	39,437,100	1899-1900	51,969,635	451,553,460
1900-01	6,591,600	49,023,100	1900-01	48,932,493	413,506,700
1901-02	6,858,200	51,490,200	1901-02	48,511,190	384,294,100
1902-03	7,734,800	57,485,500	1902-03	51,842,390	469,484,800
1903-04	7,768,300	58,200,000	1903 04	49,461,465	439,280,700
1904-05	6,822,100	43,402,700	1904-05	51,537,842	436,114,800

(a) Not stated

Note.—The figures for 1904-05 are subject to revision

WHEAT

Province	acres	tons	Province	acres	tons
Panjab and N.-W. Frontier			*Bengal*		
1891-92	6,223,600	1,419,765	1891-92	1,300,000	250,000
1892-93	7,123,300	2,235,611	1892-93	1,559,000	466,000
1893-94	8,265,200	2,560,341	1893-94	1,461,000	459,000
1894-95	8,051,800	2,395,353	1894-95	1,413,000	686,300
1895-96	6,893,400	1,753,766	1895-96	1,427,400	345,600
1896-97	6,584,300	1,872,066	1896-97	1,341,700	386,900
1897-98	8,013,800	2,358,975	1897-98	1,569,500	592,600
1898-99	7,729,200	1,977,777	1898-99	1,582,500	656,400
1899-1900	6,366,500	1,823,182	1899-1900	1,550,300	572,700
1900-01	8,766,400	2,940,602	1900-01	1,498,700	472,600
901-02	8,023,600	2,005,611	1901-02	1,408,300	391,500
902-03	7,818,100	2,549,308	1902-03	1,417,000	485,900
903-04	8,759,762	3,377,255	1903-04	1,508,600	527,800
904-05	8,594,279	3,122,990	1904-05	1,455,500	444,100
ited Provinces			*Bombay (including Native States)*		
1891-92	6,502,097	2,035,229	1891-92	2,176,000	426,000
1892-93	6,307,227	2,354,255	1892-93	2,475,000	654,000
1893-94	6,674,889	1,854,695	1893-94	2,525,000	762,000
1894-95	6,333,688	1,469,996	1894-95	2,678,665	744,961
1895-96	5,177,261	1,591,294	1895-96	2,288,838	454,865
1896-97	3,931,710	1,850,914	1896-97	1,446,741	288,002
1897-98	5,985,146	2,249,633	1897-98	2,004,832	627,914
1898-99	6,348,688	2,277,414	1898-99	2,470,998	737,385
1899-1900	6,202,826	2,410,052	1899-1900	1,157,077	99,408
1900-01	6,790,440	2,384,605	1900-01	1,433,810	298,479
1901-02	6,461,729	2,401,940	1901-02	1,510,459	179,034
1902-03	6,909,549	2,972,497	1902-03	1,797,245	532,601
1903-04	7,788,753	3,230,018	1903-04	2,174,076	560,279
1904-05	7,667,453	1,897,017	1904-05	2,115,345	345,404
Central Provinces			*Berar*		
1891-92	3,904,000	760,000	1891-92	888,000	136,055
1892-93	4,197,000	762,000	1892-93	985,000	166,395
1893-94	3,986,000	575,000	1893-94	928,000	170,893
1894-95	3,393,348	502,275	1894-95	889,326	150,232
1895-96	2,714,454	368,038	1895-96	747,025	103,084
1896-97	1,969,623	332,645	1896-97	381,425	23,413
1897-98	2,171,714	543,095	1897-98	390,378	41,983
1898-99	2,505,299	456,169	1898-99	436,362	53,571
1899-1900	1,633,070	201,803	1899-1900	17,910	414
1900-01	2,055,736	440,909	1900-01	243,554	29,900
1901-02	2,620,138	571,040	1901-02	280,085	34,385
1902-03	2,284,908	666,589	1902-03	216,955	34,625
1903-04	2,921,161	751,388	1903-04	452,663	70,052
1904-05	3,069,111	760,647	1904-05	427,333	88,205

Note.—The figures for 1904-05 are subject to revision

WHEAT—*continued*

Province	acres	tons	Province	acres	tons
Sind (including Native States)			***Hyderabad (c)***		
1891-92	483,000	117,000	1891-92	1,942,824	96,238
1892-93	604,000	204,000	1892-93	1,262,506	97,315
1893-94	531,000	161,000	1893-94	1,162,503	109,234
1894-95	673,251	215,361	1894-95	1,412,562	69,413
1895-96	315,559	71,683	1895-96	1,454,451	85,331
1896-97	406,752	116,470	1896-97	772,990	18,585
1897-98	591,621	177,160	1897-98	1,003,175	30,139
1898-99	369,706	81,231	1898-99	1,113,431	33,098
1899-1900	364,522	68,226	1899-1900	339,136	1,538
1900-01	479,487	123,160	1900-01	636,247	12,279
1901-02	534,004	109,009	1901-02	603,182	38,853
1902-03	331,608	75,987	1902-03	614,092	53,724
1903-04	586,895	202,171	1903-04	1,134,769	100,535
1904-05	510,925	123,730	1904-05	1,126,642	89,662
Rajputana			***Mysore***		
1891-92	1,471,000	362,000	1891-92	2,125	154
1892-93	1,604,000	431,000	1892-93	2,640	189
1893-94	1,646,000	389,000	1893-94	(*d*)	(*d*)
1894-95	1,529,146	368,168	1894-95	4,534	304
1895-96	1,306,868	315,573	1895-96	5,456	363
1896-97	1,374,346	293,932	1896-97	3,871	413
1897-98	1,302,233	307,062	1897-98	4,363	331
1898-99	1,196,014	276,388	1898-99	4,029	492
1899-1900	360,733	79,289	1899-1900	2,758	254
1900-01	713,290	170,682	1900-01	2,556	197
1901-02	541,834	103,869	1901-02	3,714	256
1902-03	818,399	190,841	1902-03	5,123	531
1903-04	1,125,277	297,162	1903-04	5,718	630
1904-05	1,023,773	188,981	1904-05	5,326	447
Central India			***Total***		
1891-92	2,040,126	(*a*)491,300	1891-92	27,032,772	6,093,741
1892-93 (*b*)	1,639,485	278,340	1892-93	27,759,158	7,649,105
1893-94 (*b*)	1,537,143	227,819	1893-94	28,716,735	7,268,982
1894-95	2,042,531	396,567	1894-95	28,421,851	6,998,930
1895-96	1,740,608	290,745	1895-96	24,071,320	5,380,342
1896-97	1,366,269	179,949	1896-97	20,579,727	5,363,289
1897-98	1,501,013	279,492	1897-98	24,537,775	7,208,384
1898-99	1,613,851	287,749	1898-99	25,370,078	6,837,674
1899-1900	692,950	100,276	1899-1900	18,687,782	5,357,142
1900-01	1,244,330	220,116	1900-01	23,864,550	7,093,529
1901-02	1,459,116	255,027	1901-02	23,446,161	6,090,524
1902-03	1,182,298	408,843	1902-03	23,395,277	7,971,446
1903-04	1,956,069	523,855	1903-04	28,413,743	9,641,145
1904-05	2,171,019	472,658	1904-05	28,166,706	7,533,841

(*a*) Revised estimate (*b*) Incomplete (*c*) The figures for the years previous to 1902-03 exclude *jagir* areas
(*d*) No information *Note.*—The figures for 1904-05 are subject to revision

COTTON

Province	acres	bales of 400 lb
Bombay (including Native States)		
1891-92	5,171,702	782,180
1892-93	5,286,411	1,044,928
1893-94	5,910,856	1,023,480
1894-95	5,292,717	880,240
1895-96	5,303,598	1,029,455
1896-97	5,033,549	827,819
1897-98	4,751,103	948,514
1898-99	5,098,145	1,232,861
1899-1900	3,095,206	(a)81,647
1900-01	4,240,140	759,096
1901-02	4,394,796	567,386
1902-03	4,786,657	943,327
1903-04	5,701,964	1,059,481
1904-05	5,065,696	676,155
Berar(b)		
1891-92	2,244,000	345,566
1892-93	2,186,600	262,879
1893-94	2,184,800	291,597
1894-95	2,102,956	255,628
1895-96	2,071,856	451,230
1896-97	2,306,870	335,576
1897-98	2,150,329	439,980
1898-99	2,476,306	617,222
1899-1900	1,983,602	104,693
1900-01	2,521,651	730,962
1901-02	2,689,201	612,344
1902-03	2,765,635	710,068
1903-04	2,851,222	485,696
1904-05	3,069,730	726,251
Madras (c)		
1891-92	1,243,000	80,000
1892-93	1,326,200	103,600
1893-94	1,724,000	121,200
1894-95	1,521,500	106,980
1895-96	1,623,900	120,524
1896-97	1,395,400	104,655
1897-98	1,509,100	118,876
1898-99	1,321,700	127,670
1899-1900	1,382,700	101,440
1900-01	1,373,300	118,320
1901-02	1,351,200	130,130
1902-03	1,580,900	167,109
1903-04	1,664,700	174,922
1904-05	1,809,700	136,560

Province	acres	bales of 400 lb
Hyderabad (d)		
1892-93	1,384,450	168,004
1893-94	1,456,283	147,199
1894-95	1,611,912	117,277
1895-96	1,492,768	173,283
1896-97	1,558,296	157,152
1897-98	1,653,669	163,449
1898-99	1,738,379	222,302
1899-1900	1,292,329	91,975
1900-01	1,698,836	288,570
1901-02	1,689,139	300,301
1902-03	2,359,130	280,267
1903-04	2,660,713	275,203
1904-05	2,730,686	281,857
United Provinces		
1891-92	1,011,985	163,997
1892-93	837,892	161,881
1893-94	1,069,307	296,643
1894-95	1,214,747	198,333
1895-96	1,060,905	280,414
1896-97	1,150,069	260,521
1897-98	919,671	225,478
1898-99	933,395	261,304
1899-1900	996,673	227,787
1900-01	1,046,176	294,169
1901-02	1,153,870	368,638
1902-03	1,239,131	327,728
1903-04	841,417	183,540
1904-05	1,203,430	366,561
Panjab and N.-W. Frontier		
1891-92	539,900	118,195
1892-93	948,300	200,888
1893-94	1,124,500	231,997
1894-95	1,161,200	241,667
1895-96	1,176,700	204,806
1896-97	1,128,400	223,947
1897-98	788,600	166,707
1898-99	988,400	138,926
1899-1900	1,215,400	205,203
1900-01	1,080,200	219,646
1901-02	1,057,200	220,225
1902-03	1,221,000	236,425
1903-04	1,241,000	269,665
1904-05	1,629,002	373,202

(*a*) The estimate for the year is too low, as the mill consumption for the year ending the 30th June and the net exports for the year ending the 30th September were 605,000 bales. For both the preceding and the following years the trade figures are however lower than the estimates, so that for the 3 years 1898—1901 the production would seem to be understated only by 109,000 bales. In this calculation the excess of the exports from the districts of the North and East Deccan over their reported production, which averages 208,000 bales in the twelve years 1891—1903, has been taken to represent imports by road into the Presidency from the neighbouring Native States

(*b*) The figures of production for Berar for the years previous to 1903-04 represent the mill consumption for the year ending the 30th June and the exports for the year ending the 30th September, as the provincial estimates of the outturn were extremely defective

(*c*) The estimates for Madras have hitherto excluded the *zamindari* tracts where a large amount of cotton is cultivated. No agricultural statistics are available for these areas, but it was roughly estimated in 1901-02 that that season's yield, which was taken at two-thirds of the normal, would be about 52,250 bales

(*d*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1904-05 are subject to revision

COTTON—*continued*

Province	acres	bales of 400 lb
Central Provinces		
1891-92	738,000	52,000
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	668,522	(*b*) 165,169
1899-1900	712,836	(*b*) 117,050
1900-01	1,004,812	(*b*) 268,958
1901-02	981,342	(*b*) 267,737
1902-03	1,136,431	260,798
1903-04	1,292,297	273,473
1904-05	1,540,604	409,606
Rajputana		
1891-92	517,000	117,000
1892-93	500,400	133,300
1893-94 (*c*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	478,604	117,743
1899-1900	325,033	44,161
1900-01	369,384	104,390
1901-02	281,934	87,858
1902-03	456,503	164,142
1903-04	394,795	113,365
1904-05	463,573	181,313
Central India		
1893-94 (*d*)	295,300	31,900
1894-95	512,936	38,000
1895-96	420,239	49,500
1896-97	522,683	45,900
1897-98	417,456	60,600
1898-99	471,408	46,800
1899-1900	479,565	23,100
1900-01	542,673	63,900
1901-02	529,094	72,200
1902-03	591,006	115,878
1903-04	772,173	124,727
1904-05	843,481	143,662
Sind (including Native States)		
1891-92	103,553	38,677
1892-93	69,754	37,784
1893-94	115,810	75,081
1894-95	113,589	55,141
1895-96	111,855	51,018
1896-97	123,706	56,694
1897-98	108,227	40,176
1898-99	92,312	39,712
1899-1900	92,069	20,507
1900-01	84,560	43,031
1901-02	129,409	72,553
1902-03	195,486	110,808
1903-04	209,213	115,154
1904-05	227,377	100,671

Province	acres	bales of 400 lb
Burma		
1898-99	167,821	—
1899-1900	148,563	32,900
1900-01	141,718	21,077
1901-02	130,610	13,125
1902-03	148,867	21,114
1903-04	165,154	27,487
1904-05	188,921	37,187
Bengal		
1892-93	229,900	73,612
1893-94	215,000	59,428
1894-95	206,200	63,871
1895-96	197,900	53,356
1896-97	157,100	40,184
1897-98	174,000	52,590
1898-99	167,900	45,560
1899-1900	160,600	39,705
1900-01	127,700	41,262
1901-02	118,500	32,094
1902-03	100,300	29,366
1903-04	95,800	28,112
1904-05	89,800	25,803
Assam		
1903-04	31,000	11,500
1904-05	32,000	14,000
Mysore		
1903-04	58,222	9,555
1904-05	68,783	12,553
Ajmer-Merwara		
1903-04	33,111	13,820
1904-05	51,649	21,687

Total

	Acres	Outturn as shown above (in bales of 400 lb)	Exports and mill consumption (in bales of 400 lb) (*e*)
1891-92	11,569,140	1,697,615	2,386,276
1892-93	13,422,107	2,272,716	2,318,028
1893-94	15,404,156	2,529,325	2,556,537
1894-95	14,959,103	2,223,029	2,239,019
1895-96	14,515,662	2,670,388	2,882,042
1896-97	14,643,495	2,264,890	2,651,597
1897-98	13,683,437	2,473,033	2,653,710
1898-99	14,602,892	2,915,269	3,140,130
1899-1900	11,884,576	1,090,168	2,093,521
1900-01	14,231,150	2,953,381	2,703,648
1901-02	14,506,295	2,744,591	3,310,733
1902-03	16,581,046	3,367,030	3,750,549
1903-04	18,042,781	3,168,113	3,579,643
1904-05	19,014,432	3,507,068	3,390,413

(*a*) Exclusive of zamindári area in Raipur, Bilaspur, and Sambalpur

(*b*) Represent exports and consumption of the years ending the 30th September as the reported estimates of the yield were imperfect

(*c*) Exclusive of Tonk

(*d*) Exclusive of the greater part of the Bhopal Agency

(*e*) For the years up to 1903-04 the exports are for the year ending the 30th September and the mill consumption for the year ending the 30th June. For 1904-05 both the exports and the mill consumption are for the year ending 30th June. No reliable information exists as to the annual consumption outside the mills but a million cwt or 280,000 bales is probably below the mark. The deficiency in the total of the estimates compared with the quantities exported and consumed which is especially noticeable in the year 1899-1900 cannot be satisfactorily allocated, but it is probable that the remaining errors are chiefly in the estimates of Native States

Note.—The figures for 1904-05 are subject to revision

LINSEED

Province	acres	tons
Bengal		
1892-93	805,700	121,900
1893-94	777,100	131,800
1894-95	732,900	120,900
1895-96	712,700	95,600
1896-97	587,800	84,900
1897-98	662,800	125,400
1898-99	677,900	144,700
1899-1900	653,200	126,700
1900-01	806,700	133,400
1901-02	783,800	110,600
1902-03	864,200	160,000
1903-04	922,800	168,800
1904-05	815,700	111,500
United Provinces		
1891-92 (*a*) Pure	622,000	110,000
1891-92 (*a*) Mixed	545,000	97,000
1892-93 Pure	481,000	74,000
1892-93 Mixed	604,000	94,000
1893-94 Pure	742,000	101,000
1893-94 Mixed	503,000	65 000
1894-95 Pure	753,857	69,165
1894-95 Mixed	603,000	53.899
1895-96 Pure	403,565	55,796
1895-96 Mixed	560,000	82,462
1896-97 Pure	235,166	40,036
1896-97 Mixed	345,000	58.504
1897-98 Pure	519,461	110,619
1897-98 Mixed	425,000	90,976
1898-99 Pure	438,728	87,854
1898-99 Mixed	445,000	91,284
1899-1900 Pure	357,880	73,267
1899-1900 Mixed	409,000	89,464
1900-01 Pure	448,206	75,780
1900-01 Mixed	466,000	79,000
1901-02 Pure	373,092	75,876
1901-02 Mixed	498,000	100,113
1902-03 Pure	536,044	114,595
1902-03 Mixed	621,000	122,000
1903-04 Pure	782,302	144,736
1903-04 Mixed	592,000	105,000
1904-05 Pure	661,848	51,795
1904-05 Mixed	647,000	49,000
Central Provinces		
1891-92	1,388,000	112,000
1892-93	1,384,000	134,000
1893-94	1,788,000	132,000
1894-95	1,498,672	42,532
1895-96	730,750	45,253
1896-97	527,421	19,391
1897-98	683,728	69,783
1898-99	838,255	58,955
1899-1900	306,933	4,319
1900-01	495,165	20,652
1901-02	609,596	32,786
1902-03	494,137	42,352
1903-04	808,566	77,567
1904-05	820,699	66,695
Hyderabad (*b*)		
1896-97	324,455	11,355
1897-98	438,030	15,141
1898-99	426,045	13,443
1899-1900	171,970	1,506
1900-01	371,983	8,774
1901-02	370,376	18,403
1902-03	378,559	22,343
1903-04	529,214	25,290
1904-05	775,794	33,473

Province	acres	tons
Berar (*c*)		
1891-92	364,000	35,000
1892-93	354,000	21,000
1893-94	578,000	29,000
1894-95	385,563	13,893
1895-96	500,650	27,497
1896-97	188,142	4,576
1897-98	180,472	10,405
1898-99	171,085	7,683
1899-1900	21,564	—
1900-01	154,716	5,382
1901-02	185,738	9,606
1902-03	120,753	7,289
1903-04	184 823	18,617
1904-05	113,202	11,061
Bombay (including Native States)		
1891-92	270,000	19,000
1892-93	233,000	25,000
1893-94	402,000	52,000
1894-95	410,692	25,308
1895-96	606,428	63,261
1896-97	157,763	2,221
1897-98	223,396	23,646
1898-99	277,462	23,975
1899-1900	137,356	428
1900-01	141,221	3,036
1901-02	224,002	4,537
1902-03	198,544	12,989
1903-04	381,374	31,822
1904-05	448,264	21,511
Rest of India		
1891-92	567,000	114,000
1892-93	567,000	114,000
1893-94	567,000	114,000
Total		
1891-92 Pure	3,211,000	390,000
1891-92 Mixed	545,000	97,000
1892-93 Pure	3,824,700	489,900
1892-93 Mixed	604,000	94,000
1893-94 Pure	4,854,100	559,800
1893-94 Mixed	503,000	65,000
1894-95 Pure	3,781,684	271,798
1894-95 Mixed	603,000	53,899
1895-96 Pure	2,954,093	287,407
1895-96 Mixed	560,000	82,462
1896-97 Pure	2,020,747	162,479
1896-97 Mixed	345,000	58,540
1897-98 Pure	2,707,887	354,994
1897-98 Mixed	425,000	90,976
1898-99 Pure	2,829,475	336,610
1898-99 Mixed	445,000	91,284
1899-1900 Pure	1,648,903	206,220
1899-1900 Mixed	409,000	89,464
1900-01 Pure	2,417,991	247,024
1900-01 Mixed	466,000	79,000
1901-02 Pure	2,546,604	251,808
1901-02 Mixed	498,000	100,113
1902-03 Pure	2,592,237	359,568
1902-03 Mixed	621,000	122,000
1903-04 Pure	3,609,079	466,832
1903-04 Mixed	592,000	105.000
1904-05 Pure	3,635,507	296,035
1904-05 Mixed	647,000	49,000

(*a*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) The figures for the years previous to 1902-03 exclude *jagir* areas

(*c*) The estimates of yield for the years previous to 1903-04 are defective being based on incorrect data

Note.—The figures for 1904-05 are subject to revision

RAPE AND MUSTARD

Province		acres	tons
Bengal			
1892-93		2,256,000	372,300
1893-94		2,209,100	334,200
1894-95		2,221,600	343,700
1895-96		2,148,400	332,400
1896-97		2,003,900	312,300
1897-98		2,239,700	438,600
1898-99		2,167,200	448,200
1899-1900		2,032,900	371,900
1900-01		2,043,200	337,800
1901-02		1,922,400	372,900
1902-03		1,914,100	341,700
1903-04		1,973,900	365,500
1904-05		1,961,200	358,800
Panjab and N.-W. Frontier			
1891-92		594,100	68,272
1892-93		849,900	134,720
1893-94		899,900	112,016
1894-95		802,600	97,224
1895-96		475,100	50,602
1896-97		515,300	52,756
1897-98		1,112,300	142,115
1898-99		582,600	56,041
1899-1900		397,500	26,761
1900-01		1,638,400	248,022
1901-02		739,500	73,084
1902-03		1,047,000	105,008
1903-04		1,169,131	176,363
1904-05		1,266,519	127,671
Assam			
1891-92		168,000	36,000
1892-93		170,000	45,000
1893-94		168,000	34,000
1894-95		134,399	20,249
1895-96		182,640	36,388
1896-97		178,408	38,853
1897-98		167,268	31,878
1898-99		134,856	21,891
1899-1900		119,110	21,789
1900-01		126,309	21,140
1901-02		157,671	28,294
1902-03		174,719	27,905
1903-04		172,039	29,098
1904-05		159,524	28,411
United Provinces			
1891-92 (*a*)	Pure	132,000	32,000
	Mixed	1,495,000	360,000
1892-93	Pure	126,000	27,000
	Mixed	1,731,000	367,000
1893-94	Pure	131,000	21,000
	Mixed	1,557,000	240,000
1894-95	Pure	109,347	16,497
	Mixed	1,613,000	216,050
1895-96	Pure	95,678	26,554
	Mixed	1,290,000	359,979
1896-97	Pure	83,372	18,524
	Mixed	1,526,000	340,602
1897-98	Pure	88,822	28,417
	Mixed	1,459,000	436,451
1898-99	Pure	92,679	22,884
	Mixed	1,509,000	410,983
1899-1900	Pure	76,180	21,186
	Mixed	1,381,000	425,471
1900-01	Pure	94,130	24,060
	Mixed	1,449,000	372,000
1901-02	Pure	120,436	36,841
	Mixed	1,461,000	430,617
1902-03	Pure	140,296	31,320
	Mixed	2,335,000	516,000
1903-04	Pure	131,926	29,643
	Mixed	2,429,000	542,000
1904-05	Pure	138,136	18,813
	Mixed	2,509,000	336,000

Province		acres	tons
Sind (including Native States)			
1891-92		169,000	22,000
1892-93		140,000	20,000
1893-94		111,000	17,000
1894-95		222,413	24,852
1895-96		53,664	8,503
1896-97		72,093	11,101
1897-98		154,248	27,277
1898-99		70,766	8,601
1899-1900		64,637	6,193
1900-01		119,596	12,304
1901-02		113,140	12,049
1902-03		78,606	7,813
1903-04		85,525	16,550
1904-05		63,268	2,959
Bombay (including Native States)			
1891-92		44,000	7,000
1892-93		65,000	13,000
1893-94		89,000	18,000
1894-95		91,822	18,509
1895-96		49,431	7,617
1896-97		55,615	8,207
1897-98		56,830	14,380
1898-99		53,091	9,795
1899-1900		2,536	111
1900-01		39,134	6,613
1901-02		17,438	1,721
1902-03		54,625	7,891
1903-04		36,007	5,786
1904-05		24,227	2,892
Hyderabad (b)			
1896-97		1,994	73
1897-98		3,828	140
1898-99		8,796	286
1899-1900		905	6
1900-01		16,597	286
1901-02		12,077	146
1902-03		12,537	289
1903-04		14,917	266
1904-05		12,993	218
Rest of India			
1891-92		68,000	10,000
1892-93		68,000	10,000
1893-94		68,000	10,000
Total			
1891-92	Pure	1,175,100	175,272
	Mixed	1,495,000	360,000
1892-93	Pure	3,674,900	622,580
	Mixed	1,731,000	367,000
1893-94	Pure	3,676,000	546,216
	Mixed	1,557,000	240,000
1894-95	Pure	3,582,181	521,031
	Mixed	1,613,000	216,050
1895-96	Pure	3,004,913	462,064
	Mixed	1,290,000	359,979
1896-97	Pure	2,910,682	441,814
	Mixed	1,526,000	340,602
1897-98	Pure	3,822,996	682,807
	Mixed	1,459,000	436,451
1898-99	Pure	3,109,988	567,698
	Mixed	1,509,000	410,983
1899-1900	Pure	2,693,768	447,946
	Mixed	1,381,000	425,471
1900-01	Pure	4,077,366	650,225
	Mixed	1,449,000	372,000
1901-02	Pure	3,082,662	525,035
	Mixed	1,461,000	430,617
1902-03	Pure	3,421,883	521,926
	Mixed	2,335,000	516,000
1903-04	Pure	3,583,445	623,206
	Mixed	2,429,000	542,000
1904-05	Pure	3,625,867	539,764
	Mixed	2,509,000	336,000

(*a*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1904-05 are subject to revision

SESAMUM

Province	acres	tons	Province	acres	tons
Madras			*Panjab and N.-W. Frontier (a)*		
1891-92	501,000	26,700	1891-92	122,000	15,000
1892-93	635,600	46,300	1892-93	204,500	25,900
1893-94	717,500	51,300	1893-94	234,800	25,900
1894-95	613,600	40,700	1894-95	319,200	31,917
1895-96	824,700	54,700	1895-96	189,400	18,772
1896-97	562,800	48,100	1896-97	223,400	21.379
1897-98	826,000	69,000	1897-98	195,400	22,984
1898-99	690,700	68,100	1898-99	252,600	25,350
1899-1900	665,900	45,100	1899-1900	216,400	16,253
1900-01	850,000	68,200	1900-01	218,500	19,077
1901-02	727,700	66,400	1901-02	211,500	17,640
1902-03	782,700	71,700	1902-03	244,000	20,819
1903-04	855,700	78,600	1903-04	246,600	26,143
1904-05	685,100	56,300	1904-05	158,900	15,896
Bombay (including Native States)			*Sind (including Native States)*		
1891-92	590,000	79,000	1891-92	103,000	(b) 7,800
1892-93	703,500	105,500	1892-93	109,500	10,516
1893-94	668,600	78,900	1893-94	177,740	12,309
1894-95	754,072	100,438	1894-95	191,040	15,892
1895-96	843,039	98,104	1895-96	151,038	12,052
1896-97	770,553	65,600	1896-97	183,873	12,384
1897-98	681,905	103,136	1897-98	154,812	8,260
1898-99	754,327	115,566	1898-99	114,129	8,285
1899-1900	303,148	6,186	1899-1900	158,957	7,323
1900-01	719,642	105,167	1900-01	105,881	4,468
1901-02	802,935	64,421	1901-02	99,693	5,985
1902-03	904,523	177,137	1902-03	118,044	7,602
1903-04	1,125,055	218,219	1903-04	122,496	5,665
1904-05	765,632	51,859	1904-05	88,782	5.558
Central Provinces			*Berar (c)*		
1891-92	456,000	17,000	1891-92	123,000	6,300
1892-93	503,000	33,000	1892-93	115,100	4,000
1893-94	534,700	31,300	1893-94	85,300	3,200
1894-95	520,099	27,714	1894-95	69,715	2,359
1895-96	569,407	45,243	1895-96	76,155	2,704
1896-97	627,948	43,953	1896-97	103,298	3,515
1897-98	749,491	67,770	1897-98	135,164	6,573
1898-99	634,268	43,475	1898-99	135,483	5,620
1899-1900	1,026,257	62,132	1899-1900	116,089	1,436.
1900-01	983,260	82,138	1900-01	149,022	9,554
1901-02	710,641	39,020	1901-02	118,249	2,958
1902-03	1,075,057	96,610	1902-03	138,092	5,402
1903-04	962,296	73,551	1903-04	121,551	11,630
1904-05	940,424	69,925	1904-05	111,716	10,134

(*a*) The figures of both area and yield for 1904-05 relate to Panjab only, the forecast of the sesamum crop of the N.-W. F. Province having been discontinued from that year

(*b*) Incomplete

(*c*) The estimates of yield for the years previous to 1903-04 are defective, being based on incorrect data

Note.—The figures for 1904-05 are subject to revision

SESAMUM—*concluded*

Province		acres	tons
Bengal			
1894-95		356,200	43,400
1895-96		368,900	36,000
1896-97		332,500	30,800
1897-98		367,500	49,900
1898-99		367,200	52,100
1899-1900		388,200	49,700
1900-01		396,000	45,400
1901-02		411,100	54,900
1902-03		384,800	45,000
1903-04		428,300	58,000
1904-05		414,200	50,900
United Provinces			
1891-92 (*a*)	Pure	142,000	8,000
	Mixed	551,000	32,000
1892-93	Pure	152,600	14,700
	Mixed	407,000	40,000
1893-94	Pure	200,600	19,700
	Mixed	509,000	50,000
1894-95	Pure	177,043	15,513
	Mixed	448,000	40,000
1895-96	Pure	148,833	14,554
	Mixed	560,000	55,000
1896-97	Pure	177,785	12,222
	Mixed	672,000	45,000
1897-98	Pure	147,817	14,994
	Mixed	584,000	60,000
1898-99	Pure	155,178	15,159
	Mixed	713,000	70,000
1899-1900	Pure	203,604	22,743
	Mixed	517,000	60,000
1900-01	Pure	238,154	28,431
	Mixed	622,000	75,000
1901-02	Pure	252,870	23,226
	Mixed	611,000	60,000
1902-03	Pure	316,150	35,279
	Mixed	717,000	80,000
1903-04	Pure	374,559	34,345
	Mixed	747,000	70,000
1904-05	Pure	268,564	13,900
	Mixed	600,000	35,000

Province		acres	tons
Hyderabad (*b*)			
1896-97		387,041	13,005
1897-98		404,020	13,200
1898-99		426,740	14,463
1899-1900		237,512	2,383
1900-01		392,032	10,421
1901-02		377,023	21,660
1902-03		472,282	34,038
1903-04		601,607	33,325
1904-05		780,023	29,452
Total			
1891-92	Pure	2,037,000	159,800
	Mixed	551,000	32,000
1892-93	Pure	2,423,800	239,916
	Mixed	407,000	40,000
1893-94	Pure	2,619,240	222,609
	Mixed	509,000	50,000
1894-95	Pure	3,000,969	277,933
	Mixed	448,000	40,000
1895-96	Pure	3,171,472	282,129
	Mixed	560,000	55,000
1896-97	Pure	3,369,198	250,958
	Mixed	672,000	45,000
1897-98	Pure	3,662,109	355,817
	Mixed	584,000	60,000
1898-99	Pure	3,530,625	348,118
	Mixed	713,000	70,000
1899-1900	Pure	3,316,067	213,256
	Mixed	517,000	60,000
1900-01	Pure	4,052,491	372,856
	Mixed	622,000	75,000
1901-02	Pure	3,711,711	296,210
	Mixed	611,000	60,000
1902-03	Pure	4,435,648	493,587
	Mixed	717,000	80,000
1903-04	Pure	4,838,164	539,478
	Mixed	747,000	70,000
1904-05	Pure	4,213,341	303,924
	Mixed	600,000	35,000

(*a*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1904-05 are subject to revision

JUTE

Province	acres*	bales of 400 lb
Bengal		
1892	2,135,100	5,717,400
1893	2,222,600	5,001,700
1894	2,264,300	6,144,300
1895	2,242,700	5,551,000
1896	2,196,600	5,717,000
1897	2,151,600	6,839,000
1898	1,624,400	5,334,000
1899	1,961,800	5,412,000
1900	2,093,400	(a) 6,526,000
1901	2,263,800	7,438,000
1902	2,108,300	6,577,000
1903	2,213,600	7,241,000
1904	2,850,000	7,400,000 (c)
Assam		
1902	34,400	(b) 48,000
1903	38,250	(b) 90,000
1904	29,700	(b) 46,000

Province	acres	bales of 400 lb
Cooch Bihar		
1903	23,200	(b) 50,000
1904	20,000	(b) 36,000
Total		
1892	2,135,100	See under Bengal
1893	2,222,600	
1894	2,264,300	
1895	2,242,700	
1896	2,196,600	
1897	2,151,600	
1898	1,624,400	
1899	1,961,800	
1900	2,093,400	
1901	2,263,800	
1902	2,142,700	
1903	2,275,050	
1904	2,899,700	

INDIGO

Province	acres	cwt
Bengal		
1892-93	645,950	92,006
1893-94	648,928	67,285
1894-95	629,100	104,485
1895-96	552,700	73,133
1896-97	582,200	56,671
1897-98	529,500	50,415
1898-99	512,100	74,321
1899-1900	449,200	44,996
1900-01	360,600	47,707
1901-02	311,200	41,820
1902-03	255,500	21,924
1903-04	249,700	31,895
1904-05	223,100	22,032
United Provinces		
1891-92	201,269	20,533
1892-93	206,516	26,545
1893-94	349,980	38,106
1894-95	420,242	41,524
1895-96	342,102	33,786
1896-97	436,601	40,713
1897-98	376,899	37,545
1898-99	240,418	26,416
1899-1900	231,400	17,977
1900-01	262,175	31,529
1901-02	168,990	18,986
1902-03	135,811	10,007
1903-04	140,834	12,823
1904-05	74,157	8,036
Madras		
1891-92	166,130	18,540
1892-93	301,000	50,420
1893-94	442,400	58,100
1894-95	514,500	67,480
1895-96	414,900	63,680
1896-97	454,700	50,740

Province	acres	cwt
Madras—contd.		
1897-98	323,900	61,460
1898-99	210,600	30,320
1899-1900	249,000	33,340
1900-01	251,900	46,100
1901-02	239,400	38,480
1902-03	212,200	40,260
1903-04	241,900	45,900
1904-05	123,500	16,260
Panjab		
1891-92	52,200	9,256
1892-93	65,300	10,085
1893-94	110,700	15,946
1894-95	124,200	24,005
1895-96	104,300	20,325
1896-97	135,400	20,549
1897-98	108,800	17,392
1898-99	47,200	8,263
1899-1900	97,300	15,577
1900-01	115,700	22,693
1901-02	71,600	13,533
1902-03	42,000	7,016
1903-04	74,200	12,184
1904-05	53,000	9,872
Total		
1891-92 (d)	419,599	48,329
1892-93	1,218,766	179,056
1893-94	1,552,008	179,487
1894-95	1,688,042	237,494
1895-96	1,414,002	190,624
1896-97	1,608,901	168,673
1897-98	1,339,099	166,812
1898-99	1,010,318	139,320
1899-1900	1,026,900	111,890
1900-01	990,375	148,029
1901-02	791,190	112,819
1902-03	645,511	79,207
1903-04	706,634	102,802
1904-05	473,757	56,200

* The estimates of the area under jute in Bengal have been based on very uncertain data, but special efforts were made to obtain a correct estimate in 1904

(a) Revised according to the statistics of trade and consumption, and including the production of Assam, Cooch Bihar, and Nepal

(b) Included in the production of Bengal

(c) Including 120,000 bales grown in Assam, Cooch Bihar, and Nepal

(d) Excluding Bengal

Note.—The figures for 1904-05 are subject to revision

EARTHNUT

Province	acres	tons
Madras		
1895-96	243,400	(a)
1896-97	157,300	
1897-98	94,500	
1898-99	116,200	
1899-1900	102,000	
1900-01	229,997	
1901-02	337,600	
1902-03	421,300	
1903-04	384,400	
1904-05	365,900	
Bombay (including Native States)		
1896-97	148,726	(b)
1897-98	120,303	(c) 55,962
1898-99	101,614	70,561
1899-1900	71,946	9,250
1900-01	64,411	28,631
1901-02	96,622	63,298
1902-03	69,855	61,854
1903-04	89,793	94,409
1904-05	60,204	43,036

Province	acres	tons
Total		
1895-96	(d) 243,400	(b)
1896-97	306,026	
1897-98	214,803	(e) 55,962
1898-99	217,814	(e) 70,561
1899-1900	173,946	(e) 9,250
1900-01	294,408	(e) 28,631
1901-02	434,222	(e) 63,298
1902-03	491,155	(e) 61,854
1903-04	474,193	(e) 94,419
1904-05	426,104	(e) 43,036

SUGARCANE

Province	acres	tons
Bengal		
1898-99	861,100	871,435
1899-1900	884,400	817,185
1900-01	801,800	811,420
1901-02	661,200	676,410
1902-03	673,500	681,580
1903-04	632,400	653,900
1904-05	637,800	631,420
United Provinces		
1898-99	1,227,881	1,204,799
1899-1900	1,259,070	838,885
1900-01	1,212,456	1,193,214
1901-02	1,228,691	976,222
1902-03	1,151,777	904,132
1903-04	1,089,602	877,102
1904-05	1,243,014	1,183,423
Panjab		
1898-99	351,200	(b)
1899-1900	343,600	203,935
1900-01	334,500	272,114
1901-02	351,500	239,105
1902-03	309,400	204,012
1903-04	321,200	232,664
1904-05	325,100	238,652

Province	acres	tons
Madras		
1898-99	45,500	(b)
1899-1900	54,400	
1900-01	55,400	
1901-02	51,100	109,400
1902-03	46,500	93,400
1903-04	44,300	83,700
1904-05	48,200	90,000
N.-W. Frontier		
1901-02	23,900	21,339
1902-03	26,652	23,660
1903-04	27,090	24,620
1904-05	25,912	22,661
Total		
1898-99	2,485,681	2,076,234
1899-1900 (f)	2,541,470	1,860,005
1900-01	2,404,156	2,276,748
1901-02	2,316,391	2,022,476
1902-03	2,207,829	1,906,784
1903-04	2,114,592	1,871,986
1904-05	2,280,026	2,166,156

(a) The average outturn per acre in Madras has been tentatively fixed at 1,120 lb of nuts in shell, but this estimate is not based on satisfactory tests. In Bombay where earthnut is mainly grown with the help of irrigation a good average crop is 3,200 lb.

(b) No information (c) Excluding Native States (d) Madras only (e) In Bombay only (f) Incomplete

Note.—The figures for 1904-05 are subject to revision

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Eighth Issue]

GOVERNMENT OF INDIA

COMMERCIAL INTELLIGENCE DEPARTMENT

AREA AND YIELD

OF CERTAIN PRINCIPAL CROPS IN INDIA

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

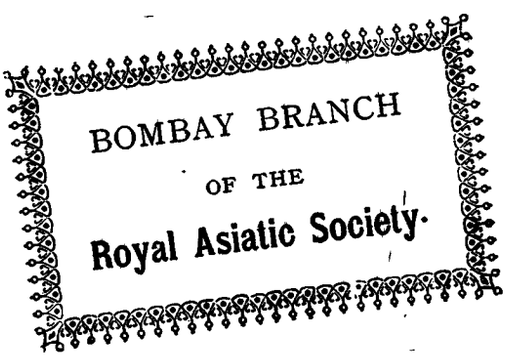
SUGARCANE

FOR VARIOUS PERIODS FROM

1891-92 TO 1905-06

CALCUTTA
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA
1906

Price Five Annas


BOMBAY BRANCH
OF THE
Royal Asiatic Society.

INTRODUCTORY NOTE

THE Government of India issue periodically during the year estimates of the yield of certain crops compiled, from local statements, in the Commercial Intelligence Department.

The general practice is to issue a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two, but for both cotton and sesamum, of which there are early and late varieties, four reports are issued. The summaries in the present publication are a condensation with corrections of the final estimates presenting in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables, abstracted from those appended to the final estimates, in which are stated the area sown and the estimated yield of the crops. The estimates are not made for the whole of India and are necessarily, in the most favourable circumstances, only approximations to the truth. The very complete agricultural records in most of the provinces in connection with the assessment of the land revenue render it possible in many cases to state with great exactness the area sown with each crop; but an equally important factor in determining the outturn, namely, the average yield per acre, has to be estimated, and exactness can be obtained only by the most careful analysis of the classes of soil, the methods of cultivation, and the climatic conditions which depend mainly on the quantity and timeliness of the rainfall in every part of the reporting areas. The quantitative estimates are thus often imperfect and they have generally been too low. The attention recently paid to the estimates of the cotton crop, which will doubtless lead to greater accuracy, has shown that some of the estimates relating to past years were extremely defective, and a comparison of the estimated outturn in 1905-06 with the sum of the net exports and computed internal consumption discloses a very large defect in the former. The revision of the estimates which was attempted has evidently been only partially successful, for the reason that there are large unregistered movements of cotton across provincial boundaries by road, while the information from some of the Native States is defective and the internal consumption other than that in mills defies accurate computation. In view of the carrying over of stocks from one year to another it is interesting to calculate the averages on the figures given at page 42. Estimates of area and production are now received from various areas which were formerly unreported; and, although figures for the *zamindari* and "whole *inam*" areas in Madras are still lacking, it is evident from the large discrepancy disclosed by the figures at the end of page 42 that there have been serious errors in the provincial estimates.

Attention has also been paid to the improvement of the jute forecasts, and the yield for past years, from 1895 to 1904, has been corrected by the statistics of exports and consumption, but the estimates of the area cultivated are based on data, which are still uncertain although they have recently been improved. Next to those for cotton and jute the estimates of acreage are most complete in respect of wheat, and the only wheat-growing areas of any importance for which forecasts have not been obtained, are the Native States

of the Panjab. For the other crops, however, the estimates of area apply only to the specified regions where those crops are largely grown, and not to the whole of India. Thus, the rice estimates relate only to Bengal, Eastern Bengal, Lower Burma, and Madras, and those for sugarcane to Bengal, Eastern Bengal, Madras, the United Provinces, the Panjab, and the North-West Frontier. Again, for the reporting territories the estimates are sometimes imperfect, for, with some exceptions, those tracts have been excluded which have not been accurately surveyed or are held under privileged tenures, and hence do not possess the regular establishments maintained elsewhere for reporting the area placed under each crop. The most serious omission from this cause is in the figures for Madras, which is a large producer of rice, cotton, sesamum, and indigo, but which has hitherto made forecasts only for the Government villages or about two-thirds of the area of the British districts. The Feudatory States within provincial boundaries are also generally omitted from the forecasts of all the provinces except Bombay and Sind. But for these omissions and a certain element of uncertainty in regard to crops which are grown conjointly or interspersed in the same field, the estimates of area relating to the Panjab, the United Provinces, the Central Provinces, Berar, and Madras may be regarded as fairly exact. The statistics for the British districts of Bombay are also very correct, but in this publication they are combined with the more conjectural figures of the provincial Feudatory States in which a large proportion of the cotton, oilseeds, and wheat is grown. The statistics of area for Bengal which relate to nearly the whole of the cultivated portion of the province, omitting unimportant Feudatory States, are also conjectural since they consist of estimates which are founded on information of varying degrees of accuracy and which have been verified by cadastral survey in respect of only about 22 per cent.

The statistics for the State of Hyderabad and the numerous States in the Central India and Rajputana Agencies rest on data similar to those of British India, and like them mostly refer to tracts in which there exists a reporting agency not equal in efficiency to that of the neighbouring British Provinces. Estimates are also included for some of the revenue-free lands held on privileged tenures.

FREDERICK NOËL-PATON,

Director-General of Commercial Intelligence.

August 9, 1906.

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AREA AND YIELD

OF

CERTAIN PRINCIPAL CROPS IN INDIA

SUMMARY OF THE CONDITIONS OF THE SEASON FROM 1891-92 TO 1905-06

RICE

1891-92

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. Deficient rain during the early part of the season also affected the autumn crop.

In Madras too the season was adverse, the rain failing over large areas.

In Burma conditions were satisfactory.

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.

In Burma conditions were good everywhere.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.

In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable.

1894-95

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.

In Madras the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.

In Burma the crop suffered somewhat from insufficient rain.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.

In Madras the crop generally was fair, though in some places, in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there

RICE

was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.

In Burma the season was favourable and the crop excellent.

1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

1898-99

In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900

In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01

In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

1901-02

In Bengal the season was not entirely favourable for the autumn rice. From April to August the rainfall was unevenly distributed, and in July it was deficient almost everywhere. General and copious rain fell in September, but in October the rains ceased abruptly. For the winter rice the season was more unfavourable. The abrupt termination of the monsoon in September, for there was very little general rain in October, did great injury to the crop, and in all the Bihar districts, where the rainfall in June was also very deficient, it was a failure. The weather was seasonable during transplantation which led to an increase in the area sown.

In Madras the season was not so favourable for early planting as in 1900, but owing to good supplies of water from the irrigation works and generally good rain in August and September an area about equal to the average yielded a crop rather more than the average of recent years.

In Burma conditions were favourable. Rain fell at the end of the first week in February, but the crop, which was greatly in excess of the average, was but very slightly injured.

1902-03

In Bengal the season was not quite favourable for the autumn rice. The ante-monsoon showers were abnormally heavy, and the monsoon rainfall which came somewhat late was unevenly distributed. October was abnormally dry and November was literally rainless. For the winter rice the season, though capricious, was not unfavourable. The weather was seasonable during transplantation. And had it not been for the deficiency of the October rains, the crop would have been much above the average.

In Madras, there was an increase in the area sown chiefly in Cuddapah, Chingleput, and North Arcot, owing to the favourable character of the season. The condition of the crop was generally good.

In Burma floods caused damage in Tharawady and Thongwa and a decrease in cultivation in Henzada. In Myaungmya the fallow area was large owing to cattle disease and sickness among the cultivators, and in Prome owing to untimely rainfall; otherwise prospects were bright.

RICE

1903-04

In Bengal the season was generally unfavourable for the autumn rice owing to a deficient rainfall in the early part of the season and heavy falls at and after the harvest. For the winter rice also the season was not altogether favourable, for although general and abundant rainfall was received at the latter part of the season, the defect at the beginning and, except in Orissa and North Bengal, in the total fall of the season affected not only the area sown, but also the growth of the plants.

In Madras an extended area was sown owing to good and timely rainfall. The condition of the crop was reported to be fair.

In Burma prospects were very favourable, though slight damage had been caused by rain in some districts. The quality of the new grain was reported to be excellent.

1904-05

In Bengal the rainfall was unseasonable and ill-distributed, and in many parts of Bihar heavy rain and floods did considerable damage to the autumn rice. For the winter rice also the season was not a favourable one, though sowings were over a larger area than in the preceding year. The crop suffered from drought from the middle of September, but in Bihar it was to a great extent saved by good rain in the latter part of October. A flood in Eastern Bengal in November did considerable damage to the standing crop, while the rest of the province continued to suffer from the drought.

In Madras a restricted area was sown owing to the failure of the rains; and the crop withered in parts from want of moisture.

In Burma the sowing rains were seasonable and sufficient, and consequently an extended area was sown. The crop, however, suffered in places from floods and high winds, and in consequence of the unfavourable break in the rains during October the grain threshed out light in several districts.

1905-06

In Bengal rainfall was ill-distributed. Heavy rain and consequent floods damaged both the autumn and the winter crops in North Bihar and Eastern Bengal, especially in the deltaic districts; while deficiency of rain affected the crops in Orissa and Chota Nagpur.

In Madras rainfall was timely, and the condition of the crop was reported to be fair to good.

In Burma a considerable area was destroyed by floods. Except in the flooded areas conditions were generally favourable.

WHEAT

1891-92

In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts in February, injured the crop.

In the United Provinces heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth, and the crop was injured by early west winds in some parts of Bihar and north and east Bengal.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnátak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the United Provinces the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and was favourable to germination. The winter rains benefited the crop, especially on unirrigated land.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

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In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the United Provinces the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

In Bombay the monsoon rainfall was excessive for *kharif* sowings and the area left unsown was utilized for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the United Provinces the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable and rust was common.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Hyderabad heavy rain late in the season reduced the yield.

1895-96

In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the United Provinces the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

1896-97

In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the United Provinces the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and

well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In Hyderabad the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second-half of May damaged the grain on the threshing-floors.

In the United Provinces the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

In Bengal the season was favourable; the autumn rain was copious and well distributed, and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In Hyderabad the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the United Provinces the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable: the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second-half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient inundation, and scanty rainfall.

In Hyderabad the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the third week of

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January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the United Provinces the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attempted on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was an almost absolute failure.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In Hyderabad the conditions and results were similar to those in Berar.

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands, and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail floods, excessive rain, and water-logging, as also, when it was on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the United Provinces the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield.

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarat rust, insects, and cloudy weather did harm. In the Deccan and Karnátak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

In Hyderabad sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.

In Rajputana and Central India both area and yield were much below the average.

1901-02

In the Panjab the monsoon rainfall was less plentiful than usual and ceased early; the winter rains failed entirely. There were no late sowings, and the whole crop went practically without rain until the latter half of March when slight showers saved the withering crop from total destruction in some places. High winds and severe frost in February also proved detrimental to the standing crop, and the yield was decidedly below the average. On irrigated lands the failure was far more extensive. On lands irrigated by wells a considerable part of the crop was in some places used as fodder for cattle.

In the North-West Frontier Province the season throughout was one of unusual drought. From October to the end of February no rain fell and sowings on unirrigated lands were much

reduced; the crop, where sown, in most cases withered away in March. A normal area was sown on irrigated lands which account for one-third of the crop of the season.

In the United Provinces the monsoon of 1901 was abnormally delayed, and general rain did not set in until the 10th of July. The fall in July and August was well distributed and sufficient; but in the next two months it was deficient in the Meerut division and in parts of Agra and Rohilkhand where sowings in most places were effected with the aid of irrigation. November and the first three weeks of December were entirely rainless, and irrigation was resorted to wherever possible. The season was unusually dry and the unirrigated crop suffered generally from drought.

In Bengal the rainfall in Bihar was deficient in September and seriously in defect in October, and there was practically no rain until March, when it was too late to benefit the crop. There was a contraction in the area sown owing to drought at the sowing season in Bihar where the yield was much below the normal.

In the Central Provinces the season was abnormally dry, the October rain on which the germination of wheat largely depends, being represented by only a few local showers, and there was no rain thereafter except in the first-half of January in some places. Frost, rats, and insects also injured the crop.

In Berar the monsoon rainfall was in excess of the normal, and although there were no winter rains, the moisture in the soil at sowing time was sufficient to promote the growth of the young plants and to bring the wheat satisfactorily into ear. At this stage, however, rats appeared in large numbers and did considerable injury, destroying in some localities almost the whole crop of the field in a single night.

In Bombay there was a contraction in the area sown owing to the deficiency of late rain. In Gujarat and north Deccan, the September rain was very deficient and sowings made little progress until after the October rains. No rain fell in November and December, and the crop suffered considerably not only from want of surface moisture, but also from the scanty supply in the wells. The surviving crop was further almost destroyed by a very severe plague of rats. In the south Deccan and the Karnátak, the September rain was generally sufficient, but that in October was below the average and checked full sowings. Later rains were light and partial and the crop withered in many places, particularly in the eastern tracts where no rain fell and no irrigation was possible. Damage by insects and disease was also reported from a few places. The Sind crop was fairly good.

In Hyderabad conditions were at first somewhat favourable, but rats did considerable injury in places and over a large area; the late rains were also not favourable.

In Rajputana both area and yield were much below the average. In Central India the area and yield were larger than the quinquennial average, but a little short of the decennial average.

1902-03

In the Panjab conditions were favourable for early sowing on irrigated lands, and a considerable area was sown, except in the Mooltan division where canal water and rainfall were insufficient. The practical absence of rain until the fourth week of January rendered late sowings on dry lands impossible, and caused much injury to crops on such lands. In the submontane and central districts good rain in January considerably improved prospects. February was practically rainless, and a very anxious period ensued until the advent of copious, frequent, and general rain in March. Good showers continued well into April, which was beneficial as the crop was very backward. On the whole the conditions were favourable at the beginning and end of the season, but the prolonged drought in the middle of the season caused considerable injury to the crops on dry lands.

In the North-West Frontier Province, on the whole the season was a favourable one. Conditions of the weather were very similar to that in the Panjab. The crop came to maturity in a good healthy condition, but the quality of the grain was damaged to some extent when it was lying on the threshing-floor by the heavy rains of April and May.

In the United Provinces rainfall in September and October was favourable for the preparation of fields; moisture in the soil was sufficient; and the seed germinated freely. After this the season was unusually dry and irrigation was resorted to on a large scale. November and December were entirely rainless and were followed by severe frost. The rain in the last week of January was pretty general and greatly benefited the unirrigated crop. February and March were also practically rainless and the crop was gathered without any mishap, though in the western divisions white ants, frost, and dry west winds caused some damage.

In Bengal the rainfall in September was general and plentiful, but it was seriously deficient in October, there being practically no rain in south Bihar and Chota Nagpur. The fall in the subsequent months was markedly deficient in Bihar, and in a lesser degree elsewhere. On the whole the season was unfavourable to the wheat crop.

In the Central Provinces the monsoon rainfall was favourable for the preparation of land. In the southern districts, however, the monsoon ceased extraordinarily early in September and consequently the area sown was contracted, whilst the early growth of the plants was stunted. Prospects were gloomy, but were much improved by some good cold weather showers. In the northern districts the season was throughout favourable owing to the late monsoon rainfall and an exceptionally heavy fall at the end of October. Consequently the area sown showed a substantial increase. The cold weather showers were also exceptionally good and beneficial.

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In these districts the crop was the best reaped during the past ten years, and, but for some damage by frost and insects, would have been a heavy bumper crop.

In Berar the area was contracted owing to the repeated failure of the late rains during the past few years which made cultivators fear to reserve much land for winter sowings. The rainfall during the year was up to the average, and the exceptionally good showers in November and December greatly benefited the growth of the plants, and raised the yield above that of the previous year, although a contracted area was sown.

In Bombay the season was very good in Gujarat; in the Deccan and Karnátak the crop was somewhat damaged by heavy rain in December, and in Sind it suffered from a poor inundation. For the province generally the season was above the average. The monsoon was late, beginning in the second week of July. Some of the early crops were lost and had to be resown. August rain was sufficient and September rain was very good. The October rain was below the average, but in November heavy widespread rain was of great benefit to the young crop. An unusually heavy fall in December injured the crop in places.

In Hyderabad area was contracted, but the outturn was satisfactory.

In Rajputana there was a substantial increase in both area and yield. In Central India the area did not reach the figures of last year which showed a large increase over those of the year previous and the quinquennial average, but the yield was as good or better.

In Mysore both area and yield were substantially larger than those of the preceding year and the average.

1903-04

In the Panjab conditions were distinctly favourable from the beginning to the end of the season. The crop was also unquestionably a bumper one and the straw was as good as the grain. A serious misfortune which calls for special notice is the particularly virulent outbreak of plague which visited the new Jhelum colony. In consequence of this a large proportion of the new settlers fled to their old homes, abandoning a large area of splendid wheat which was left to rot on the ground.

In the North-West Frontier Province copious and well distributed monsoon rains facilitated the preparation of an unusually large area for wheat sowings, and the heavy rain in December and January enabled the cultivators to make extensive late sowings on unirrigated lands. February was fair and favourable for growth. Heavy and opportune rain was received in all districts throughout March and an unusually large proportion of an unusually large area was brought to maturity. The yield all round was said to be the best within living memory.

In the United Provinces owing to the heavy and continuous rain at the close of the monsoon, which spoiled much of the value of the early tillage, the crop was sown rather late, with inferior tillage and excessive moisture in the ground. From sowing time onwards, however, the season was, on the whole, remarkably favourable, the deficiency of the winter rains being largely made up by artificial irrigation. The cloudy weather at the end of February and the beginning of March induced a rapid spread of rust, but it came too late to do serious harm. The quality of the grain was good except in a few localities where the crop suffered from drought or strong winds.

In Bengal the heavy rains in October favoured the retention of moisture by the soil during the wheat-growing season. In November light showers were obtained all over the province, except in Bihar where the bulk of the wheat crop is raised. December was practically rainless, but the crop in Bihar was much benefited by the January rains. In February the rainfall was more general and copious. On the whole, the season was generally favourable.

In the Central Provinces and Berar an extended area was sown with wheat. The crop was, however, affected by the absence of winter rains. The heavy rain which fell at the end of February and the beginning of March and which was in some localities accompanied by severe hailstorms caused further deterioration, especially in the Berar districts. This deficiency in the weather conditions was, however, made up by the increased area sown.

In Bombay the area under wheat increased in most districts owing to favourable rains at sowing time in the Presidency proper and to a plentiful water-supply in Sind. The season was good in Sind and Gujarat. In the Deccan the crop suffered from deficiency of moisture, and from locusts and rats in places. In the Karnátak late rains were excessive and much damage was done by rust. For the province generally the season was fairly good.

In Hyderabad an increased area was sown, and a very good crop harvested, although damage was done by heavy rains in places.

In Rajputana both area and yield showed a very marked increase over the preceding year.

In Central India both area and yield increased substantially over the figures of the preceding year and the average.

In Mysore also both area and yield was substantially larger than those of the preceding year and the average.

1904-05

In the Panjab conditions of the rainfall were ideal except in a few central districts, but the crop received a serious check everywhere from the abnormally severe frosts which were experienced in the last week of January and the first week of February. Palpable harm was done to all early sown and advanced crops. Fortunately, however, favourable rainfall and sunshine soon changed the situation; and, on the whole, the effect of the frost was to retard harvesting

operations by two or three weeks and to convert what would have been a bumper crop into one a little above the normal. WHEAT

In the North-West Frontier Province conditions were similar to those in the Panjab.

In the United Provinces conditions were everywhere most promising till the end of December, but the rest of the season proved disastrous. Owing to frosts of unprecedented severity and rust brought on by damp and cloudy weather enormous damage was done especially in the southern and central districts.

In Bengal the rainfall of October was very favourable throughout the wheat districts. Drought prevailed since then until January when rainfall was again general. But in February and March frost, rain, and hail did considerable damage in Bihar where the bulk of the crop is grown. On the whole the season was unfavourable.

In the Central Provinces and Berar rainfall was favourable at sowing time and an extended area was placed under the crop. The crop was affected by the frost of January and February in the northern districts, but fortunately the damage was serious only in Saugor. Cloudy weather accompanied by rain storms in the end of February and beginning of March caused the appearance of rust in several districts, but the disease was severe in Jubbulpur only. The southern districts, however, fared much better than the northern, while the winter rains were less favourable in Berar than in the other districts.

In Bombay the area was curtailed in most places owing generally to insufficient sowing rains in the Presidency proper and to low inundation in Sind. The crop suffered through deficiency of moisture everywhere except in Kaira, Cutch, and Dharwar. The severe cold and frost of January-February further injured the crop, particularly in Sind, Gujarat, and parts of the Deccan.

In Hyderabad the area sown was very nearly equal to that of the preceding year, but owing to deficient winter rains the yield was much less.

In Rajputana the area was a little below that of the preceding year, but the yield was proportionately much worse.

In Central India the yield showed a decrease, though the area sown was substantially larger than in the preceding year.

In Mysore there was a slight decrease in the area sown, but the yield was considerably below that of the preceding year.

1905-06

In the Panjab conditions were most favourable for both early and late sowings, but deteriorated under drought which lasted from the beginning of January till the middle of February. After that time, when heavy and general rain set in, the season was excellent. The grain was of admirable quality everywhere, and the harvest was a bumper one.

In the North-West Frontier Province the season was on the whole a very favourable one; and the crop was much above the average, though in places it suffered from hailstorms and high winds.

In the United Provinces a restricted area was sown owing to drought at sowing time. The deficiency of rain was, however, largely made up by irrigation, which began much earlier than usual. The irrigated crop, which this year comprised nearly two-thirds of the total area under wheat, did exceptionally well; the yield was heavy and the quality of the grain exceptionally good. The unirrigated crop suffered much from continued drought: the rain of February was expected to improve it; but the outturn was reduced by strong winds at the time when the grain was ripening.

In Bengal, in spite of the want of rain at the sowing season in October, the crop promised fairly well at first; but in February continuous rain accompanied by cloudy weather and hail storms caused serious damage.

In Eastern Bengal the season on the whole was not a favourable one, owing to ill-distributed rainfall.

In the Central Provinces, although the usual October showers were wanting, heavy rain at the end of September enabled cultivators to sow at the usual time with fair success in all but two or three districts. In Berar, where the monsoon was deficient, the sowing season was less favourable. The crop suffered from drought and also from an absence of dew; but it was greatly benefited by the rain received at the end of January. The harvest was on the whole not much below normal.

In Bombay, a very restricted area was sown owing to deficiency in the late rains. The dry crop fared tolerably well in North Gujarat; but elsewhere it suffered through insufficiency of moisture and also in places from cloudy weather. The irrigated crop was generally fair in the Deccan; but elsewhere it suffered through the deficiency of water-supply.

In Sind an extensive area was sown owing to timely and plentiful inundation. The crop suffered slightly from locusts and in places from frosts; but the season on the whole was favourable.

In Hyderabad the area sown was much below that of the preceding year owing to want of late rains; and the crop was almost a complete failure in the important district of Aurangabad.

In Rajputana and Central India both area and yield showed a marked decrease as compared with the preceding year.

In Mysore also the area and the yield were much below those of the preceding year and average, owing to deficient rainfall.

COTTON

1891-92 In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July when rain was excessive. These conditions and locusts caused injury to both the early sowings and the late crop.

In the United Provinces the weather conditions were similar to those in the Panjab, with a worse result.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low-land.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnátak. In Sind the overflow of the Indus was also late and irregular.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it.

1892-93 In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the United Provinces.

In the Central Provinces excessive and injurious rain fell in September and October.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

1893-94 In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the United Provinces continued heavy rain from July to October, and strong winds, retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency proper and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

1894-95 In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious, but on the whole very beneficial.

In the United Provinces, on the other hand, the area was slightly below the average and heavy rain and stormy winds in October and November reduced the yield.

In Bengal, owing to excessive rain, the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

In the Central Provinces and Berar the rains were heavy and injured the standing crop.

In Bombay the rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with the early and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains.

1895-96 In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that on irrigated land the crop was good, but poor on land dependent entirely on rain.

In the United Provinces the rains were generally favourable to the crop, weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season proved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of reasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton. The area sown with the late crop was also below the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year. In Sind there was a deficiency of water-supply.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which was inadequate and the crop was bad.

In the United Provinces there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop especially on unirrigated lands.

In Bengal the season was unfavourable, and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In Hyderabad a restricted area was sown, and the crop was poor.

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the United Provinces of Agra and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season, though a little late, was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing *Northern* and *Western* varieties, but the lateness of the monsoon contracted the area in places where *Tinnevelly* and *Salem* cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In Hyderabad the area sown was large, but owing to an unfavourable season, the yield was bad.

1898-99

In the Panjab the rainfall at sowing time was scanty, in August it was irregular and deficient, but favourable showers in September did much to develope and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted.

In the United Provinces the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop.

In Bengal the season was unfavourable owing to the uneven character of the monsoon.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn.

In Berar dry weather in October and the failure of the late rains had a bad effect, but the yield was good.

COTTON

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In Hyderabad the monsoon was late at the commencement of the season, and though prospects were improved by rain in August and September, the yield was bad.

In Rajputana the season was on the whole unfavourable owing to insufficient rain; in Central India the crop did well.

1899-1900

In the Panjab the prospects of the crop were generally hopeful in the beginning of the season, and sufficient rain at sowing time and a good supply of canal water induced cultivators to sow an extensive area, a large proportion being on land irrigated by canals and wells. But with the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the United Provinces excessive rain in June and July interfered with sowings and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was almost entirely lost.

In Bengal, in the early part of the season, the rainfall was irregularly distributed, and later it was on the whole inadequate, and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain, but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places, and where it survived gave a very poor yield. In Sind the water-supply was deficient and the yield poor.

In Madras the season was, on the whole, unfavourable and the yield very poor.

In Hyderabad the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the United Provinces the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

In Bengal the rain in July was, on the whole, well distributed and fairly continuous. In August it was deficient and irregularly distributed. Much more copious and general rain fell in September, but in October it was deficient. The season was, on the whole, unfavourable to early cotton, though fairly favourable to the late cotton except at sowing time.

In the Central Provinces, in consequence of the relative cheapness of cotton seed, favourable conditions at sowing time, and good prices, a very extensive area was sown. The distribution of the rainfall left something to be desired. In some parts the plants were swamped by the heavy and continuous rain of August and September, especially in the richer soils and in low-lying positions. Heavy rain in September also injured the flowers, and the absence of rain in October affected the crop in poor soils and high-lying fields, and owing to insufficient moisture the bolls withered before maturity.

In Berar the area under cotton was the largest hitherto known. The monsoon rainfall was better than for many years past. The early rains were somewhat deferred and sowings were later than usual, but the fall in June and July was normal; August was very wet and in September also the fall was excessive; but the rains closed abruptly at the end of that month. The cotton crop on poor soils suffered from lack of moisture, but on all rich black soils and in low-lying lands there was a heavy crop.

In Bombay early cotton in the Deccan and late cotton elsewhere, mainly in Gujarat, covered a restricted area, early rains being deficient and not allowing full sowings. The devotion of part of the usual cotton area to food-grains consequent on the scarcity of the preceding year also accounts for some of the decrease. The crop promised well at first, but afterwards it suffered from the deficiency of the late rains.

In Madras the north-east monsoon failed in some places and the area sown was also restricted by the preference given to the cultivation of food-grains. The crop was generally fair except in the Deccan districts, where *Northerns* and *Westerns* were affected by disease and want of rain.

In Hyderabad with good rain at the sowing season for early cotton a large area was brought under cultivation, but late cotton did not receive sufficient rain; and in the Aurangabad division, which has the largest cotton area in the territory, the sudden cessation of the winter rains kept the crop back.

In Central India both area and yield were much in excess of the average.

In Burma heavy rains greatly injured the crop.

1901-02

In the Panjab the rainfall of May was beneficial to the crop, and the injurious effect of the long break in the rains in September and October was chiefly felt on unirrigated land. Some damage was also done by locusts, grasshoppers, and rats.

In the United Provinces a very large area was placed under cotton, although the rains were late, owing to the stimulus given by the high prices and the plentiful crop of the preceding year.

In Bengal the season was on the whole unfavourable by reason of deficient rain for the cotton crop, both early and late.

In the Central Provinces the germination of the crop, which was not sown under favourable conditions, was unequal, and a long break of the rains in the first-half of July necessitated resowings to some extent in most of the important cotton-growing districts. Excessive rain in August did some injury which was not altogether made good by a timely break in the second-half of September. Owing to the absence of rain after September, and the ravages of insects in October, the prospects of the crop materially deteriorated.

In Berar the monsoon rainfall was unusually heavy and continuous. It was not until the beginning of September that a break of any duration occurred and the crop then was suffering from excessive moisture; but three weeks of fine weather followed by timely showers brightened prospects considerably; and the clear cold weather of November and December brought the crop rapidly to maturity. Rats, however, caused much injury.

In Bombay there was some increase in the area sown with early and late cotton in the British districts of Gujarat and the Deccan, and in Baroda and some other Gujarat States, owing to favourable early rains, but not enough to compensate for the large decline in Káthiáwár and Cutch and in the Karnátak districts, which resulted from the deficiency of rain at the sowing season. In Sind there was a small increase due to a better water-supply. In Gujarat the season began well, but the crop made little progress owing to the failure of the late rains. Afterwards locusts and rats materially injured the surviving crops.

In Madras the condition and prospects of the crop were, on the whole, fair, and unusually late rain in the Deccan districts considerably improved prospects there. On the other hand, late and subsequently very heavy rain retarded sowings in the south; both the area and the yield were, on the whole, below the average.

In Hyderabad the rains were, on the whole, favourable.

In Central India and Rajputana the crop was good.

In Burma the season was not favourable owing to want of rain.

1902-03

In the Panjab, owing to deficient rainfall in February and March, unirrigated cotton sowings contracted. The deficiency of rainfall, however, stimulated cultivation with the aid of irrigation. The rainfall of June was favourable for late sowings on unirrigated lands. The break in the rains towards the close of July and August marred the prospects a good deal and the flowers did not form well. September rains, however, improved the crop very much, but the flowers that formed then were late and the cold of the last few weeks checked further development.

In the North-West Frontier Province timely rainfall from March to June stimulated sowings and proved exceedingly beneficial to the young plants, and the seasonable rains of July, August, and September enabled further sowings to be made. The crop was fairly average.

In the United Provinces owing to a succession of seasons of light rainfall, which generally tends to the success of this crop, the cultivation of cotton extended. Prospects, however, deteriorated afterwards. In places the flowers fell off without bearing bolls, while in others the full development of the bolls was checked. Damage was also reported in places from high winds and insects. The irrigated early crop escaped serious injury, but the unirrigated late crop suffered severely.

In Bengal owing to insufficient and ill-distributed rainfall the season was anything but favourable to the early crop. For the late crop also the season was not favourable owing to deficient rain.

COTTON

In the Central Provinces, sowings, though late, were succ essful over an exceptionally large area. Germination was good, the weather was favourable for weeding, and the plants thrived. Since then the season was not so favourable. In the northern districts heavy rain in October and November did considerable damage just when the plants were in flower, and in the southern districts, the plants suffered in their later stages of growth from drought accompanied by cloudy weather, which caused the withering of immature bolls. Damage was also caused by insects. The season did not thus fulfil its early promise of being an exceptionally favourable one, but it was still about the average.

In Berar the exceptionally good crops of the preceding two seasons and the favourable market prices influenced the cultivators to sow cotton extensively. The monsoon rains commenced unusually late and there was an extensive break in August which caused some anxiety; subsequently the rainfall was light but timely, and prospects were brilliant. Unfortunately heavy rain in November caused considerable damage to the ripe cotton, and in some districts knocked ripening bolls off the plants. But, although the late rains damaged the crop that had reached maturity, a heavier yield than usual was gathered from the later pickings.

In Bombay the area contracted mainly in the British districts of Gujarat and the Deccan, where the opening rains came much later than usual. In the Gujarat States, however, there was a considerable extension in area which made up part of the deficit elsewhere. Though the crop suffered in places from excessive rain and cold at the time of the opening of the bolls, the season was distinctly favourable.

In Madras an extended area was sown owing to good and timely rainfall; and the condition of the crop was reported to be generally good.

In Hyderabad the crop was unfavourably affected in the Mahratwara districts, where most of the cotton is grown, by cloudy weather and untimely rain that fell when the cotton capsules were growing, and in Bidar the capsules fell off in parts.

In Rajputana and Central India the area exceeded the average and the crop was excellent.

In Burma also the crop was very good.

1903-04

In the Panjab, the late spring rains were favourable for sowing throughout the central and north Panjab, with the result that the increase in the area sown in these parts of the province more than compensated for the deficiency in the Delhi division due to the late arrival of the monsoon rains. The outturn was also considerably below the average in the dry area of the Delhi division. Taking the rest of the province as a whole, the late rains caused late flowering, and excessive rains in some districts was also prejudicial to the yield. A few districts also reported high winds at flowering time. But conditions were fairly satisfactory in the most important districts of the province.

In the North-West Frontier Province the heavy rainfall of March afforded sufficient moisture for cotton sowings. The rainfall of May helped on the crop and that of July improved prospects.

In the United Provinces a relatively small area was sown owing to the late arrival of the monsoon. The rainfall was favourable up to the end of September, when the crop, though backward, was doing fairly well. The excessive rain in October and the strong winds that prevailed changed the whole prospect. In a few western districts, which escaped the full severity of the storm, the crop was comparatively good; elsewhere it was little more than half the normal.

In Bengal the defective rainfall in the early part of the season was, on the whole, favourable to the early cotton crop, except where the rainfall was altogether insufficient in May. In the flowering season, that is, in September and October, the rainfall was generally in excess, and consequently the production was low in most districts. For the late crop also the season was not altogether favourable as the rainfall was generally insufficient.

In the Central Provinces the crop was put down under favourable conditions. Germination was good and very little resowing was necessary. The heavy and continuous rainfall in August and September, however, retarded weeding operations and checked the growth of the plants, while the continuance of rainy weather in October not only prevented this injury being repaired, but also increased the damage from excessive moisture in some of the most important cotton-growing districts. Some damage was also caused by grasshoppers in parts of Nimar and Chhindwara The prospects of the crop therefore materially deteriorated.

In Berar favourable seasons and good prices greatly encouraged the cultivation of cotton and a record area was sown. But the damage caused by heavy rain was reported to be greater here than in the Central Provinces.

In Bombay (including Sind) favourable rains at sowing time extended the area sown almost everywhere. The crop progressed well at first, but later on it suffered from deficiency of moisture in North Gujarat and through its excess in the south. Injury was also caused by locusts in Gujarat and by disease in parts of the Karnátak. On the whole, however, the crop fared well everywhere.

In Madras there was an expansion of the area sown owing to good and timely rainfall. The condition of the crop was reported to be generally good.

In Hyderabad the area sown showed an increase over the preceding record year; but the crop was affected by heavy rain, especially in the western districts. In the southern districts where a large portion of the crop is sown late the crop was better.

In Ajmer-Merwara rains ceased early after the middle of September, and the crop was injured by locusts and cold winds.

In Rajputana, owing to the lateness of the sowing rains, a restricted area was sown. The crop was also damaged by locusts and high winds in places.

In Central India an extended area was sown, and the yield also was well above the preceding year, though the crop suffered considerably from rain in places.

In Burma the early rains generally were scanty, and the later rains somewhat in excess. But fortunately the destruction due to the August drought and the heavy rainfall of October extended to a limited area only and did not appreciably affect the total outturn.

In Assam the crop suffered seriously from drought in March and April. Since then the weather proved generally favourable.

1904-05

In the Panjab there was an extension of cultivation, especially in the Delhi Division, owing to sufficient rainfall at sowing time. The unirrigated crop suffered severely from the failure of the monsoon in the central Panjab. On the whole, however, the yield was fully up to the average, and above the average in many districts.

In the North-West Frontier Province also the heavy rains of March enabled the cultivators to make extensive sowings in April and May. In the succeeding months, from June to October, the rainfall was well distributed and sufficient in all the districts, except Dera Ismail Khan, where it was deficient and affected the crop to a great extent.

In the United Provinces the very large decrease, which took place in 1903-04 in the cultivation of cotton owing to the late arrival of the monsoon, was nearly made up in 1904-05 owing to favourable and sufficient sowing rains in most places. The crop suffered from excessive rain in the Allahabad Division, but in the other cotton-growing tracts conditions were satisfactory.

In Bengal the season was unfavourable for the early cotton crop, which suffered from heavy rain in some districts and from want of moisture in others. For the late crop also the season, on the whole, was not favourable, the rainfall being ill-distributed, and insufficient in many places.

In the Central Provinces and Berar the sowing season though somewhat late was on the whole favourable and an extended area was sown. Germination was good and the light rainfall during the early monsoon facilitated weeding. Owing to long breaks in July and the latter part of August, the plants on light soil were stunted, but good rain fell before serious damage had occurred and the plants affected by drought recovered to a great extent. Some damage was done to the crop in places by rain in October when flowers were opening and als by locusts and other insects, the damage being reported to be greater in Berar than in the other districts.

In Bombay there was a decrease in the area sown in the Deccan, Karnátak, Káthiáwár, and Cutch due to the shortness of early sowing rains. On the other hand, in the British districts of Gujarat, and also in Sind and Baroda, the cultivation was considerably extended, partly under the stimulus of the high prices of the preceding year and partly in the hope that cotton would be more likely to succeed in a season of deficient rainfall than other crops. The crop, however, suffered everywhere in the Presidency proper through deficiency of moisture, and in places from excessive cold and disease. In Sind the crop was fair.

In Madras an extended area was placed under the crop owing partly to timely rainfall and partly to the good prices obtained in the preceding year. The crop, however, suffered seriously from want of rain.

In Hyderabad owing to favourable conditions of the season both the area and the yield slightly exceeded those of the preceding year.

In Rajputana, Ajmer-Merwara, and Central India an extended area was sown and heavy yield obtained.

In Burma the rains began well and continued favourable till towards the end of season, in October, when they were unusually heavy and did a good deal of damage to the crop.

In Assam the season was generally favourable and a better yield than that of the preceding year was obtained.

1905-06

In the Panjab, although conditions were favourable at sowing time, the season was disastrous to the cotton crop. Its destruction was ascribed to green fly in July and August, to severe drought in August, and finally to the ravages of boll-worm in September and October.

In the North-West Frontier Province rainfall was generally sufficient at sowing time, except in Dera Ismail Khan where failure of timely rains interfered with sowing operations. The crop was damaged by boll-worm in places.

In the United Provinces conditions at sowing time were favourable, as enough rain was received in the first-half of July. The rainfall in August, however, was seriously deficient. Light rain in places during September benefited the crop; but October was practically rainless. The irrigated crop did well; but the dry crop was an almost total failure.

In Bengal, for the early crop, weather conditions were generally favourable in the early part of the season; but some damage was caused by excessive rain in September. The late crop also was damaged by excessive rain and floods.

In Eastern Bengal and Assam also the crop was injured by excessive rain.

COTTON

In the Central Provinces and Berar the season was at first favourable though somewhat late; but prospects deteriorated owing to bad distribution of the rainfall and the absence of dew. In the tracts most affected the plants withered; and over a large area in Berar the usual three pickings were not obtained.

In Bombay the favourable character of the early sowing rains and the short rainfall in the season suitable for other crops led to an extended cotton cultivation. The crop in Gujarat and Khandesh made an excellent start but suffered from absence of rain at the end of the season. Elsewhere in the Deccan and the Karnátak rain was very scanty and the crop withered in many places. In Sind a favourable inundation induced a great expansion of cultivation; but the crop was seriously damaged by boll-worm.

In Madras conditions were not favourable at sowing time; and the crop suffered from want of rain.

In Hyderabad the crop not only suffered from unfavourable season owing to the failure of late rains, but also from rain in the third week of January.

In Ajmer-Merwara unfavourable winds blighted the crop; and in many places, although the plants reached maturity, they produced little or no cotton.

In Rajputana a very restricted area was sown and the crop was almost a complete failure in many places.

In Central India an extended area was placed under the crop; but the yield obtained was much below average.

In Burma the rainfall was generally favourable; and the condition of the crop was on the whole good, though excessive rain did some damage to the crop.

OILSEEDS

Linseed, Rape, and Mustard

1891-92

In the Panjab the season was fairly good for oilseeds, and the area was the largest on record up to that year, but the yield disappointed expectation.

In the United Provinces the season was mild and favourable to linseed, and the rapeseed was free from fungoid disease: both crops, however, suffered to some extent from the lateness of the winter rains.

In Bengal the dryness of the season affected the crops, and reduced the areas considerably in most districts.

In the Central Provinces and Berar the season was on the whole favourable. In the former linseed suffered from the failure of the winter rains; while in the latter rain at sowing time was favourable, but the late rain was scanty.

In Bombay, though a large area was sown with linseed in the North Deccan, the crop was everywhere poor owing to deficient rain, and in the Karnátak it was a complete failure from drought. The rapeseed crop in Gujarat and Sind was also injured by the dryness of the season, and the yield was very deficient.

1892-93

In the Panjab where the oilseeds mature late, the winter rains were followed by a large increase in the area sown.

In the United Provinces the expectations of a good crop were not realised owing to frost and wet weather in January and February.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was good.

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. But on the whole both linseed and rapeseed did well.

In Assam the season was favourable.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair.

In the United Provinces the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crop suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts.

In the Central Provinces the crop promised well in the earlier months, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much good.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being good. In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In Hyderabad excessive rain caused a contraction in places of the area sown, while in others timely rainfall promoted sowings.

In Assam the season was favourable for mustard.

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts.

In the United Provinces the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was poor.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In Hyderabad the winter rains injured the crop.

The area under mustard in Assam was small and the yield inferior owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite bad in the Panjab, Sind, the United Provinces and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95 when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northern India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other hand, was more or less contracted everywhere except in Hyderabad, and the contraction was very material in the Panjab, the United Provinces, Bombay, and Sind. The harvest, however, was good on the reduced area in the United Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a good crop.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts, but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In northern India the winter rains were timely and sufficient and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

The area sown with linseed was greatly contracted in the United Provinces, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at sowing time. The yield was also bad especially in the Central Provinces and Berar, while in Bombay the crop almost entirely failed. In Bengal and the United Provinces the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the United Provinces. The harvest was generally fair. The short rainfall in Assam was unfavourable for sowing mustard and the yield was affected by the absence of rain during the period of growth.

1897-98

Conditions in the Panjab, the United Provinces, and Bengal were favourable at sowing, and although the area sown was restricted, except in the Panjab where the acreage under rapeseed was increased, the yield was good.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapseed crop, however, did better in Bombay and Sind.

The mustard crop in Bengal and Assam was reduced in consequence of retarded sowings and deficient winter rains.

OILSEEDS

1898-99

In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage.

In the United Provinces excessive moisture at sowing time, and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; and injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda) in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places.

1899-1900

In the Panjab the early cessation of the monsoon, the dry autumn months, and the lateness and deficiency of the winter rains, had the natural result of diminished sowings and restricted yield of rapeseed. In some places no yield at all was obtained, the crop having been cut when green and eaten as a vegetable by the people or given as fodder to the cattle.

In the United Provinces excessive rain in June and July was followed by a material deficiency in August and September, and the three following months were exceptionally dry; fortunately rain fell about the middle of January and did much good to both linseed and rapeseed.

In Bengal the season was not favourable to the cultivation of oilseeds. The rainfall in the autumn months was in defect, and the want of rain was felt in many districts at the time of sowing, while an excess in others interfered with the proper germination of the seeds. The usefulness of the rain which fell in January was qualified by the injury done in some places by hail.

In Assam the late subsidence of the floods, combined with the late cessation of the rains, interfered with timely sowings, but the yield was good owing to favourable weather after the crop was sown.

In the Central Provinces, the want of moisture in the soil at sowing time, and the absence of the winter rains, told upon linseed seriously. Germination was exceedingly defective, and the plants which came up yielded but little seed.

In Berar also linseed was a disastrous failure. Even the best black soil failed to retain enough moisture to nourish the crop, and the plants withered before reaching maturity.

In Bombay linseed was a complete failure in Gujarat, no sowings being possible in consequence of the failure of the rains. In the Deccan and other parts of the Presidency, the conditions were hardly better. The rapeseed crop was also practically a complete failure, some outturn having been obtained only in Cutch.

In Hyderabad which is subject to climatic conditions resembling those of Berar and Bombay, linseed, rapeseed, and mustard all did very badly.

1900-01

In the Panjab the season was most favourable for rapeseed. The monsoon rains were abundant and the winter rains fell at opportune intervals, both for sowing and maturing. The area under the seed was more than double the average, and the yield very large.

In the United Provinces the moisture in the soil was ample at the sowing season, and consequently the area sown was extended. But the excessive and prolonged continuance of the rain and cloudy weather generated fungoid diseases, and the crop was seriously affected by them in many districts, the yield in the localities affected being hardly more than half the normal crop.

In Bengal the monsoon rains were fitful and irregular, falling in abnormal quantity towards the end of the season, while the winter rain in January and February was also much in excess of the normal. On the whole the season was unfavourable to the oilseed crops, which suffered from an excess of rain in many districts and from comparative drought in others.

In Assam the mustard crop suffered in most districts from the absence of rain during the period of growth.

In the Central Provinces the continuous rain during August and September interfered with the preparation of land, whilst the absence of the usual October showers was unfavourable

to sowings in some districts. Germination was generally good, and except in Nagpur, prospects were favourable until the continued cloud and rain in January and February induced rust which caused great injury. The unfavourable conditions after January told seriously upon linseed.

In Berar the area sown with linseed was far below the average. After the year of famine during which both food-stocks and credit were exhausted, the general inclination of the cultivators was to obtain as early a crop as possible, and larger areas were devoted to the autumn crops, notably jawar and cotton. The monsoon rainfall was in excess of the average, but the ground had been so thoroughly parched by the failure of the rains of 1899 that the moisture was rapidly absorbed and was inadequate for the successful growth of linseed. No rain fell after sowings had been completed; the rain of January came too late to be of any material benefit and the yield was poor.

In Bombay linseed is mostly grown in the Deccan and Karnátak, and in both tracts the crop suffered so greatly from the absence of moisture owing to scanty rain as to be an almost complete failure. Rapeseed did better in Gujarat, but this crop is of much more importance in Sind where the area sown was in excess of the average and a fair yield was harvested.

In Hyderabad an extensive area, not materially smaller than the average, was placed under linseed, but the conditions of the season were unfavourable, as in Berar.

1901-02

In the Panjab the monsoon rain ceased early and was not as abundant as usual. The winter rains failed entirely, and high winds and severe frosts in February proved detrimental to the crop, which was only saved from destruction in some places by slight showers in March. Owing to the absence of rain in the sowing season, a very small area was sown with oilseeds, while sources of artificial irrigation were devoted chiefly to superior crops. The crop on unirrigated lands gave extremely poor results generally and failed entirely in several localities. On irrigated lands also the crop was below the average.

In the North-West Frontier Province, as in the Panjab, the season was most unfavourable for rapeseed. There was a decline in the area sown owing to the failure of the winter rains and to the short supply of irrigation from canals and hill torrents.

In the United Provinces the autumn rains in the latter half of the season were insufficient in the Meerut division, and in parts of the Agra and Rohilkhand divisions; in the rest of the provinces conditions at seed-time were less unfavourable. The winter rains were scanty, only light rain having fallen towards the close of December and the beginning of January. Linseed is generally sown after an autumn crop, and, as the soil was too dry for sowing without previous irrigation, the area sown with this seed declined largely; but the area and yield of rapeseed were larger than the average.

In Bengal the monsoon was weak, the deficiency being serious in the Bihar and Chota Nagpur divisions. On the whole, the season was unfavourable for oilseeds, especially in Bihar; and there was a decline in the area sown owing to drought in the sowing season.

In Assam the season was favourable for the mustard crop except for heavy rain at the end of November. The area sown was larger than usual, and the yield was almost equal to the average.

In the Central Provinces the absence of moisture in the soil at the sowing season and the failure of the winter rains told seriously upon the linseed crop. Germination was defective and the plants which came up yielded but little seed.

In Berar there was no winter rain, but the season was favourable for sowing, and in most localities the seed germinated freely and prospects were good; but considerable injury was done by rats, and these prospects were not realised.

In Bombay the absence of moisture severely injured the linseed crop, and its ruin was completed by rats, which destroyed nine-tenths of the crop in Khandesh. As regards rapeseed, the conditions in Sind where the crop is mostly grown were fairly good, but in Gujarat the crop was almost a complete failure by reason of drought and the destructive activity of rats.

In Hyderabad the area was slightly smaller than the preceding year, but a little larger than the average. The yield was smaller than the average owing to the unfavourable character of the latter part of the monsoon.

1902-03

In the Panjab the late continuance of the monsoon was favourable for sowings, and an extensive area was sown; but the failure of the winter rains caused widespread injury, and though good rain fell from March 10th onwards, this was too late to benefit rapeseed to any considerable extent. Insects also did great harm in places.

In the North-West Frontier Province the season was on the whole favourable for the rapeseed crop. But considerable injury was done to the crop in Hazara and Kohat by heavy rains at harvest time which blackened the stalk and damaged the seed.

In the United Provinces the autumn rains were seasonable and there was sufficient moisture in the ground when the crops were sown. November and December were entirely rainless and were followed by severe frost. The first winter rains in the last week of January generally benefited the crops. After that there was practically no rain. As in the case of wheat the dry season was very favourable to the oilseed crops, though in some districts in the west slight damage was reported from frosts and hot west winds.

OILSEEDS

In Bengal the monsoon rains were generally plentiful, but terminated abruptly in September. In that month there was good rain in Bihar and Chota Nagpur; in north Bengal the fall was greatly in excess of the normal, while elsewhere it was, on the whole, slightly in defect. October was unusually dry, and the following two months were practically rainless. The drought continued through January in Bihar and east Bengal, while elsewhere there were seasonable showers. General but scanty rain in February slightly benefited the crops. There was, however, very little rain during the next two months, except in a few districts of east Bengal, and on the whole the season was not favourable.

In Assam, the partial loss of the rice crop caused by floods induced people to sow mustard more largely than usual. But for want of rain during the season of growth and other unfavourable causes, the character of the crop was much below the average in many districts. The increased area sown, however, made up for the poor outturn of the crop.

In the Central Provinces the early cessation of the monsoon rainfall contracted sowings; germination was defective for want of moisture, and the crop which came up suffered from the continued drought. In the northern districts, where conditions were not unfavourable at sowing time, some damage was caused by frost and insects.

In Berar the decrease in the area sown was attributed to the repeated failure of the late rains during past years, which induced cultivators to allot more land under monsoon (*kharif*) crops. There were good showers in November and December which improved the outturn.

In Bombay there was a decline in the area sown with linseed in the Deçcan and Karnátak and the crop was affected by rust and disease in places owing to excessive rain, and also from want of sufficient moisture. In Gujarat the crop was fairly good. As regards rapeseed, the crop in Gujarat suffered slightly from frost in Baroda; elsewhere it was fair. In Sind there was a decrease in area owing to low inundation; but the condition of the crop was fair.

In Hyderabad there was a temporary withholding of the rains at the commencement of the season, but the conditions afterwards turned very favourable.

1903-04

In the Panjab owing to favourable conditions at sowing time an exceptionally large area was placed under rapeseed. The failure of the winter rains in the south-eastern districts seriously affected the crop. In all other districts conditions were favourable throughout; and the crop on the whole was a bumper one.

In the North-West Frontier Province conditions were unfavourable for sowing, except in Dera Ismail Khan where hill torrent irrigation was unusually favourable and allowed of an exceptionally large area being sown. The general rain at the end of December and in January were most beneficial to the crop. The rains during the subsequent months were ample and well distributed, and the crop came to maturity in an unusually good condition.

In the United Provinces moisture was excessive and in some places the crops were sown late. Linseed is generally sown after an autumn crop, and as moisture was ample a very large area was devoted to its cultivation. The area under rapeseed, however, slightly fell off. November and December were dry; but light rain in the middle of January greatly benefited the crops. In some districts in the eastern half of the province linseed was attacked by an insect pest, but the damage done was not serious.

In Bengal the heavy rainfall of October was on the whole beneficial to winter oilseeds, though it was reported to have injuriously affected the crops in some districts. There were light showers in November, except in Bihar, where owing to want of rain in November and December, the crops suffered. Throughout Bihar and north Bengal, however, light showers were obtained in January, and in February the showers throughout the province were fairly copious. March and April were practically rainless and this facilitated harvest operations. On the whole therefore the season was favourable.

In Assam the season was not altogether favourable to the mustard crop. In the Surma Valley and parts of Lower and Central Assam, cultivation was to some extent impeded by heavy rain and consequent floods at the commencement of the sowing season. Want of rain was subsequently felt over the greater part of the mustard-growing area.

In the Central Provinces and Berar, sowings, though somewhat late owing to the heavy and continuous rainfall during August and September, were successful over increased areas in the important linseed-growing districts. But the absence of the winter rains and the unfavourable conditions during the end of February and the beginning of March told seriously upon the crop. The cloudy weather which preceded the February rain caused the flowers to wither before the seed was set, and also favoured insects which damaged the crop considerably in some districts.

In Bombay a very extensive area was sown with linseed. The increase was due to larger sowings of wheat and jawar with which the oilseed is sown mixed. The crop was fairly good everywhere, though excessive late rains induced disease and rust in places. As regards rapeseed, in Gujarat there was a decrease in area as well as in yield owing to deficient late rains. In Sind the inundation was favourable and the outturn good.

In Hyderabad owing to excessive rain autumn sowings suffered considerably and winter sowings had to be suspended. Nevertheless, the area placed under both linseed and mustard was much larger than in the preceding year. Severe cold and insects, however, injured the crops in places.

1904-05

In the Panjab the season was favourable for sowings except in some of the central and south-western districts where water-supply was deficient. The severe frosts of January and February were, however, disastrous to the crop almost everywhere.

In the North-West Frontier Province, conditions were unfavourable at sowing time except in Hazara and Peshawar where the monsoon and autumn rains were favourable. The crop was, however, at one time threatened with extinction by severe frosts, but it rallied under the influence of copious rains in March followed by bright settled weather in April.

In the United Provinces conditions were very promising till the end of December, but the crop suffered severely from the frosts of January and February, and where it survived the frost, was badly attacked with rust. The rapeseed crop was also damaged by insects.

In Bengal the season was on the whole an unfavourable one for oilseeds. The crop was seriously damaged by hail, frost, and rain chiefly in the districts of Bihar and the Rajshahi Division where the bulk of the crop is grown. The excessive rainfall of March and April also hampered the progress of harvesting operations.

In Assam the season was not unfavourable, but a somewhat restricted area was sown. The crop was fair.

In the Central Provinces and Berar the delicate linseed crop was unable to support the unusual inclemency of the season. In the northern districts frost in early February damaged the crop seriously; later the cloudy weather and rain storms in the end of February and beginning of March carried a step further the destruction already caused in the north and did serious damage in most of the southern districts. Insects and rust appeared in places, and the deficiency of the winter rains and damage caused by hail in Berar resulted in a lighter crop in that part of the province.

In Bombay an extended area was placed under linseed, but the crop suffered from excessive cold and frost in Gujarat and from deficiency of moisture in the Deccan and Karnátak. As regards rapeseed the area contracted owing to low inundation and deficient water-supply, and the crop suffered, particularly in Sind, from excessive cold and frost.

In Hyderabad the area sown with linseed was much larger than in the preceding year, but the crop was somewhat affected by the failure of late rains.

1905-06

In the Panjab the sowing season was favourable. The prolonged drought of January and early February gave the crop a serious check; but it recovered under the heavy and general rain in the latter part of February, except in the east Panjab where a considerable portion of the crop was cut for fodder.

In the North-West Frontier Province the season was on the whole a favourable one.

In the United Provinces moisture was insufficient for sowing, especially in the important linseed growing tracts in Bundelkhand. The absence of early winter rains very injuriously affected both linseed and rapeseed crops. In the eastern and submontane districts, however, where these crops are extensively grown, natural moisture was sufficient, and the yield was fair.

In Bengal the crop suffered to some extent from want of moisture at the time of sowing, and more severely from untimely rain in January and February.

In Eastern Bengal the season was not on the whole favourable. The crops suffered from ill-distributed rainfall and also from insects in places.

In Assam also the season was on the whole unfavourable.

In the Central Provinces and Berar, the sowing season was not unfavourable for the early crop; but the early cessation of the monsoon rains affected the area under the late crop. Germination was generally satisfactory. The crop was, however, seriously damaged by frost, hailstorms, and absence of seasonable winter rain.

In Bombay deficiency of late rains interfered with the sowing of linseed, and a very restricted area was placed under the crop. The crop suffered from want of moisture and in places completely withered. As regards rapeseed, which is confined to Gujarat and Sind, the season was favourable, and the crop good.

In Hyderabad unfavourable weather conditions affected both the area and the outturn of the linseed crop.

Sesamum (til or jinjili)

1891-92

In the Panjab the season was decidedly unfavourable, the late arrival of the monsoon causing a reduction in the area sown. The crop was damaged by locusts, and the yield was very poor.

In the United Provinces the monsoon rain was quite abnormal, light in the beginning, but excessive at the latter end of the season. The area and yield were both small.

In the Central Provinces the season was unfavourable and sowings were greatly restricted. The crop was very poor.

In Berar excessive rain and insects injured the crop, though its condition was favourable in some districts owing to sufficient and seasonable rain.

In Bombay the rain at sowing time was favourable, but the growing crop suffered from drought as well as from excess of moisture in places. In Sind a low inundation and locusts affected both area and yield.

In Madras the area and yield were reduced by the unfavourable character of the season.

OILSEEDS

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July, stimulating sowing. The yield was very good.

In the United Provinces sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop.

In Berar unfavourable rain and the rotation of crops caused a decrease in the area sown. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In Bombay there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was better than in the preceding year. In Sind the harvest was bad.

In Madras, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the sown area; but the yield was small.

In the United and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the United than in the Central Provinces.

In Berar the early sowings were impeded by deficient, and the latter sowings by excessive, rainfall; and excess of rain in September injured prospects.

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was not good. In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop good.

In Hyderabad the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield.

In the United and Central Provinces the season began well, but injury was afterwards done by excessive rains, especially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the United Provinces the loss occasioned by the rains was considerable.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower, and the yield was generally poor.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was deficient owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower. In Sind with favourable rain and extensive inundation the yield was fairly good.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The early cessation of the north-east monsoon rainfall restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was very poor.

1895-96

In the Panjab the rainfall was unfavourable, and the crop on the whole was poor.

In the United Provinces the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, but the season became adverse later by reason of deficient rain and the abnormal heat which prevailed to the end of November.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was bad.

In Bombay a large area was sown, the rainfall being seasonable, but the crops, both early and late, suffered from want of moisture. In Sind scanty rain and a low inundation curtailed the area, and the young crop suffered from want of moisture.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average, on account of the

excessive sowing of the early crop. Rain was too heavy in some places, while it was deficient in others, and the yield from both crops was bad.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor.

In the United Provinces the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands.

In the Central Provinces the area sown was large, but the crop generally fared bad except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly.

In Bombay, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended through timely rain. The former crop suffered severely from drought, and the result was a poor yield. The latter did not suffer as much.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food-crops accounted for a contraction of the area sown in most provinces.

The yield varied greatly from about an average crop in Bombay, the United Provinces, and the Panjab, to greatly below the average in Madras, Sind, and Hyderabad.

In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the United Provinces the area sown was restricted, and excessive rain towards the latter part of the season deteriorated prospects.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time.

In Berar sowings were made under favourable seasonal conditions, and, though the crop was injured by the failure of the late rains, the yield was large.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere, which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was large.

In Madras the season was favourable for the late crop, and it grew in good condition on an extended area. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded a poor crop.

1899-1900

In the Panjab the season opened very well, but became more unfavourable as the months passed, and the yield was small.

In the United Provinces the excessive rainfall in the beginning of the season gave rise to apprehensions regarding the prospects of the crop, and later the crop was damaged by continued drought in the Meerut, Agra, and Rohilkhand divisions, where, however, *til* is not extensively sown. In the tracts in which the cultivation of *til* is important the moderate rainfall of August and September proved very beneficial and the yield there was good.

In Bengal on the whole the season was good enough, though the rains were irregular, excessive in some places, and insufficient in others; and the yield was larger than the average.

In the Central Provinces the season favoured sowing operations, but it did not continue favourable, and the abnormal heat of November did much injury. The early crop was fairly successful, but the cold weather *til* in many places began to wither when on the point of maturity.

In Berar the crops withered under the drought and the excessive heat which followed.

In Bombay the early rains were scanty and the later rains failed entirely. Owing to the extremely unfavourable nature of the season the crop withered away in many places, and where it survived gave the poorest yield.

OILSEEDS

In Madras the area sown was restricted, the south-west monsoon being unfavourable in most places, and the yield was not good.

In Hyderabad the rains failed, and the crop withered under the drought which followed some good rain in September.

1900-01

In the Panjab the area sown was much below the average, heavy floods in some districts restricting sowings.

In the United Provinces the monsoon began late and was generally scanty and unevenly distributed until the third week of August. Then and in September, excellent rain fell, and its distribution was all that could be desired, especially in Bundelkhand, which ordinarily contains four-fifths of the whole area under sesamum. Except for heavy falls in Benares and Gorakhpur in the second week of October, the weather during that month and November was clear and seasonable.

In Bengal the monsoon rainfall was capricious and irregular, and, on the whole, the season was not favourable for oilseeds, which suffered from an excess of rain in many tracts, while in others they suffered from drought.

In the Central Provinces the conditions at the time of sowing, both of the early and late varieties, were generally favourable and a large area was sown. Sesamum is a cheap crop to sow, and it resists drought better than most crops. The difficulty of obtaining the relatively expensive seed of wheat and other spring crops stimulated its cultivation. The early crop suffered somewhat from the heavy rain at the close of August and during September. The germination of the late sown crop, which is more extensively grown in the south of the provinces, also was irregular, heavy rain just after sowing having washed away part of the seed. Drought during October and November, abnormal heat, and insects, following on cloudy weather, also injured the crop. In consequence the yield was smaller than the normal.

In Berar the rains at sowing time and the monsoon rains were favourable; there was no prolonged break, and the crop developed well under congenial climatic conditions.

In Bombay the conditions were good in Káthiáwár at the time of sowing, and double the average area was sown, the increase there and in Gujarat more than making up for the contraction in other parts of the Presidency caused by the preference of cultivators for the cultivation of food-grains.

In Madras the conditions were not good, and though a large area was sown the crop was deficient.

In Hyderabad a few seasonable showers in January, which were badly needed, improved prospects.

1901-02

In the Panjab and the North-West Frontier Province the rainfall at sowing time was unevenly distributed, being excessive in some districts and insufficient in others. The yield was below the average owing chiefly to the early cessation of the monsoon rains.

In the United Provinces rain commenced late, about the 10th of July; the weather in August was favourable and the rainfall above the normal in most districts; a break ensued early in September; but at the end of the month heavy rain was received in the greater part of the provinces. The rainfall of October was deficient. November was practically rainless. Sowings were late, the drought in September retarded growth, and deficient rain in October caused further injury.

In Bengal there was no rain in December and January, and the winter crop suffered severely in consequence. A very restricted area was sown owing to drought at sowing time.

In the Central Provinces the rainfall was very unfavourable. The early sown variety suffered, especially in the north, from excessive rain, the crop being washed out in places, while weeding was retarded or altogether prevented. The conditions were still more unfavourable for the late sown crop, which is put down at the end of August or during the first week of September. Continuous rain at this time interfered with sowings and much of the seed sown was washed out by heavy showers. Germination was very defective and many fields were ploughed up and devoted to other crops. A prolonged break subsequently occurred during which the young plants that germinated languished from want of proper moisture, and some injury was also caused by insects.

In Berar the monsoon rains were heavier than usual and the crop suffered from excessive moisture; during July and August the rainfall was almost continuous, and weeding operations were rendered impossible. Rats and locusts also attacked and injured the crop.

In Bombay the increase in the area sown in parts of Gujarat and Karnátak, due to favourable rains for sowing, was not sufficient to counterbalance the large decrease elsewhere, resulting mainly from the scantiness of sowing rains in the Presidency proper and to a low inundation in Sind. In Gujarat the season was very unfavourable owing to the failure of the late rains, while rats and locusts did some injury in places. In the north Deccan, too, the crop suffered to some extent from the same causes, while in Sind it was affected by a deficient water-supply.

In Madras in the Circars, the Deccan districts, and the west coast the sowings were about up to the average, but owing to the unfavourable season they were very deficient elsewhere, especially in the Carnatic.

In Hyderabad the area was above but the yield below the average, the late rains having been unfavourable.

1902-03

In the Panjab there was an increase in the area sown owing to seasonable rainfall and the low floods in the riverain tracts which facilitated cultivation in lands usually inundated. In Ferozepore, Montgomery, and Jhang however there was a marked falling off owing to deficient moisture at the time of sowing. The outturn was good in Gujarat, Lahore, and Ambala. Elsewhere it was only average or below average owing to a break in the rains of July and August. The crop was also attacked by insects in places.

In the North-West Frontier Province the crop was above the average, both as regards area and outturn.

In the United Provinces the rains set in rather late in the first week of July and continued till the close of the month. In the first and the last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the provinces. The rainfall of September was almost uniformly excellent. Light but insufficient rain was also received in October in most districts. November was entirely rainless. The season of light rainfall was in general favourable to the sesamum crop.

In Bengal the monsoon rains ceased early and the drought continued through January in Bihar and east Bengal, while outside that area there were seasonable showers in all the chief oilseeds-growing districts except Murshidabad. There was general and beneficial rain in February and March, but, on the whole, the season was not favourable.

In the Central Provinces the monsoon though late was favourable both for the sowing and the growth of the early variety. The late variety was sown under fairly favourable conditions and germination was good. But afterwards conditions were less favourable and there was some deterioration.

In Berar the rains began late and sowings were undertaken later than usual, but subsequently the season was favourable. Although the rainfall generally was below the average, the showers were timely, and the crop was in a thriving condition. Unfortunately when harvest operations commenced at the end of October the weather again turned wet and considerable damage was done to the crop.

In Bombay the monsoon broke much later than usual and did not permit full sowings of the early crop. For the late crop, however, the season was favourable and extensive sowings made up the deficit under the early crop. Though the crop suffered at first a little by a prolonged break in the middle of the season and later on the reaped and ripe crop was somewhat damaged by excessive rain, the season on the whole was favourable. The area and outturn were both deficient in Sind.

In Madras owing to seasonable rainfall an extended area was sown, and the condition of the crop was generally fair.

In Hyderabad the crop was unfavourably affected in places, but nevertheless the total yield was the largest recorded in the territory.

1903-04

In Bombay owing to favourable sowing rains an extended area was placed under sesamum, especially in the Gujarat States. Though the crop suffered in parts of Gujarat from locusts, in the east Deccan from deficiency of moisture, in the Karnátak and Konkan from excessive rain, and in Sind from blight and insects, the season on the whole was fairly satisfactory.

In Madras the rainfall at sowing time was seasonable, and the condition of the crop generally fair.

In the Central Provinces the rainfall during August and September was exceptionally heavy and continuous. This interfered with weeding operations and the growth of the early sown crop, besides impeding the sowings and germination of the late variety. Heavy showers in October considerably damaged the young plants, some fields being ploughed up, and materially deteriorated the prospects of the crop.

In Berar the damage caused by heavy rain was greater than in the Central Provinces.

In Bengal the season was on the whole favourable, though the crop was injuriously affected by the heavy rain of October in some districts and by the want of rain in November and December in some others.

In the United Provinces the crop at first suffered somewhat from the heavy rain of August and September, but the damage caused by the excessive rain of October and the strong winds that accompanied it was great.

In the Panjab damage was reported from floods and late rains, but fortunately the crop in the important districts was not much affected.

In Hyderabad the crop suffered to a considerable extent owing to heavy rains, although an extended area had been brought under cultivation.

1904-05

In Bombay the area sown was much below that of the preceding year owing to deficiency of rain in the Presidency proper and low inundation in Sind. The early crop suffered through the prolonged break after sowing, but a portion was saved by the late September rains which also induced sowings of the late crop. This started well, but suffered equally with the early crop owing to the absence of subsequent rains.

In Madras also a restricted area was sown owing to want of timely and sufficient rainfall. The condition of the crop was, however, generally fair.

In the Central Provinces and Berar the season was unfavourable. The sowing of the early crop was delayed in some districts owing to the lateness of the monsoon. Subsequently

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heavy and continuous rain and then a long break checked the growth of the plants and interfered with late sowings. The crop was detrimentally affected by the droughty conditions that prevailed and the damage caused by locusts.

In Bengal the season was not unfavourable at the beginning, but the crop was afterwards damaged by hail, frost, and excessive rain.

In the United Provinces sowings were delayed and restricted owing to excessive rain. The crop suffered from excess of rain at the beginning and from drought at the end of the season.

In the Panjab also sowings contracted on account of the late arrival of the monsoon in most districts and its failure in the Central Panjab. The crop suffered from want of sufficient moisture and the yield was unsatisfactory in all but three districts.

In Hyderabad the season was unfavourable owing to insufficient rainfall in the early months of the monsoon, coupled with failure of the late rains.

1905-06

In Bombay the season was on the whole fairly satisfactory in Gujarat and Khandesh, though the crop suffered to a certain extent through deficiency of late rains; elsewhere in the Presidency proper, the failure of September rains entirely destroyed the crop in many places. In Sind the inundation was favourable and the crop yielded fairly well.

In Madras the rainfall at sowing time was seasonable, and the condition of the crop was generally fair to good.

In the Central Provinces and Berar the early crop was sown under favourable conditions; but the heavy rain of September was detrimental to the sowing of the late crop. The early crop promised well till the middle of September, but heavy rain in the latter half of that month followed in places by cold mists caused deterioration. Insects also damaged the crop in some localities. Where re-sown in properly cultivated land after the heavy rain of September the outturn of the late crop was little below normal; but a large area was not re-sown. In Berar drought damaged the crop.

In Bengal prospects were somewhat gloomy early in the season through want of sufficient moisture; but the season became favourable after the general rainfall in December and January.

In Eastern Bengal the season was not on the whole favourable owing to ill-distributed rainfall.

In the United Provinces deficient rainfall in the latter half of July somewhat restricted the sowings. The rainfall in August and September was on the whole light and October was entirely rainless. The injury from drought proved greater than was anticipated.

In the Panjab the season was on the whole unfavourable for sowings owing to deficient rainfall in July; and two months' drought resulted in a general failure of the unirrigated crop in the Delhi division, and in poor or moderate outturns in other tracts. The rainfall of September, although beneficial, came too late. The crop also suffered from floods in riverain tracts.

In Hyderabad rainfall was insufficient at the time of sowing, and the crop was affected by unfavourable weather conditions.

JUTE

1891

The rainfall at sowing time was excessive, and the area placed under the crop was smaller than in the preceding year. Germination and growth were also affected by excessive rainfall. Later, again, the want of rain was felt in several districts.

1892

Excessive rainfall injured the plant in some districts, but on the whole the season was good, and a larger area was sown under the stimulus of high prices.

1893

The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season.

1894

Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first-half of August the fall was favourable in every district.

1895

The rainfall was in excess of the normal quantity in April and the first-half of May, heavy in the second-half of May in east Bengal, and less than the average in other parts. In the

next two months it was deficient, and in the first-half of August it continued deficient in central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger.

1896 Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts.

1897 On the whole the season was favourable, and there was enough water for steeping.

1898 The area sown was smaller than in 1897, owing partly to the unfavourable character of the season at sowing time and partly to the low prices of jute in 1897 and to high prices of food-grains.

1899 The weather, though seasonable in the beginning, became extremely unfavourable towards the end of the season.

1900 There was some deficiency of rain in March and April, which prejudicially affected sowings in a few places. In May and the first fortnight of June, the rainfall was also light, but good rain later greatly improved the prospects of the crop. In July there was heavy rain in most districts, but a partial drought followed in August which, combined with a want of flood water from the rivers, hampered steeping operations in north and east Bengal, and in a few cases diminished the yield. Fair rains fell in the first-half of September, but almost too late to have much effect on the yield.

1901 The rainfall in the earlier months of the year was almost uniformly unfavourable. In June there was heavy rain in almost all the important jute-growing districts; in July the rainfall was very irregular but not seriously deficient; the rainfall of August was again capricious, and was in considerable defect in some important jute-growing districts. There was heavy rain early in September, and thereafter the weather was fine and hot. On the whole, the weather was unfavourable up to the close of May, but it was exceptionally favourable afterwards.

1902 In Bengal the season was abnormal. A prolonged drought ended in the middle of March. In April and May the rainfall was excessive, especially in the Dacca and Tippera divisions. In south-eastern Bengal the weather was, therefore, very unfavourable for sowings, and to a less extent this was the case also in north-eastern Bengal. The heavy rain in May also retarded weeding. Since then the weather conditions were normal, but the prospects of the crop were not encouraging.

In Assam the weather was unfavourable at the beginning of the season, and the adverse influences persisted to the end. The crop was injured by excessive rain and flood.

1903 In Bengal rainfall was deficient at the time of sowing, but later on conditions improved owing to the favourable rainfall in August. On the whole the season was generally a favourable one.

In Assam the season was unfavourable at the beginning owing to drought in April and May, but subsequently weather conditions turned favourable, as was the case in Bengal.

1904 In Bengal an extended area was placed under the crop. In the early part of the season excessive rain damaged the crop in the most important jute-growing districts. In other districts the weather was generally favourable, though weeding operations were hindered by heavy rain in places.

In Assam the season was very unfavourable. Heavy rain in April and May, accompanied in places by floods and hailstorms, greatly diminished the area sown and seriously affected its prospects.

1905 In Bengal the weather was on the whole moderately favourable, though in some tracts, particularly in the Rajshahi Division, weeding operations were seriously impeded by the spring and summer rains. Damage by caterpillar was reported from some of the south-Gangetic districts, and by floods from certain places in Eastern Bengal; but it was reported that the floods affected the quality of the crop rather than the outturn.

JUTE

In Assam the season was favourable except in Sylhet. A very high flood in the Brahmaputra suspended the cutting of jute for some days, but did no material damage to the crop.

INDIGO

1891-92

In Bengal the season was altogether disastrous in consequence of an unusual deficiency of rain, and although the weather was more favourable at the manufacturing season, the yield was hardly increased.

In the United Provinces the rains commenced very late and were heavy and continuous, causing a reduction in the area sown. The excessive drought in June and July seriously tried the crop, while the continued wet weather of August prevented the proper development of dye in the leaves.

In the Panjab the late arrival of the rains, and the ravages of locusts in some places, reduced the area and the yield.

In Madras the area and yield were seriously affected by an unfavourable season.

1892-93

In Bengal the season was unfavourable at sowing time owing to deficient rain in autumn and spring; conditions improved later with favourable rain, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused injury.

In the United Provinces the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In the Panjab a protracted drought in the early summer retarded sowings, and the area sown was very much reduced.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December.

1893-94

In Bengal the rainfall was favourable at sowing time, and a large area was sown, but heavy and incessant rain and floods caused great injury.

In the United Provinces a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a good yield.

In Madras larger sowings were made owing mainly to timely rains.

1894-95

In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In the United Provinces although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second-half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In the Panjab the area sown was increased, and the crop was good.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most places.

In the United Provinces the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In the Panjab the crop was fair.

In Madras the season was favourable in Kistna and North Arcot where a large area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The yield generally was fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the United Provinces germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair. Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield small.

1897-98

In Bengal the area sown was small, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the United Provinces the season was not favourable; the growth of the plants was interfered with, early in the season, by excessive heat and insufficient rain, and the heavy rain of July and August flooded the low lands and greatly injured the indigo growing on them.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good.

In Madras the area sown was small, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food-crops.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar.

In the United Provinces the season was not favourable. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

1899-1900

In Bengal the season in the beginning was not unfavourable, but the excessive rain which fell in June, July, and August was most injurious, and the crop was also injured in many districts by the floods which followed the excessive rain.

In the United Provinces the crop continued in good condition until the end of June, but excessive rain fell in July and seriously injured the plant everywhere, especially in the eastern districts. The rains then fell away and drought, particularly in the Agra and Meerut divisions, added to the injury done by heavy rain.

In the Panjab the crop suffered from the absence of rain and the stoppage of canal irrigation in Multan and Dera Ghazi Khan. In some unirrigated tracts it failed entirely.

In Madras also the season was generally unfavourable and the yield deficient.

1900-01

In Bengal sowings and the early growth of the crop were retarded by the scanty rain of April and May. Fairly good rain in June and July was followed by an interruption in August, but prospects were improved in Bihar by abundant rain in September, which, however, was accompanied by floods and consequent injury to the crop in Lower Bengal. In October sufficient rain fell, and the season generally was much better than that of 1899. The area, however, was restricted, owing to the substitution of other crops for indigo in north Bihar under the discouragement of the comparatively low level of prices during the preceding three seasons. The yield on the whole was good in the districts of north Bihar, but very poor in Lower Bengal where, however, the cultivation of indigo was greatly restricted.

In the United Provinces, unlike Bengal, the area sown increased, the increase being ascribed to the temporarily improved prices in the previous season. It may be that that improvement was an inducement to native growers of indigo, while it did not remove the discouragement to European planters. In the early months of the season prospects were good, but heavy rain in the Doab towards the end of the season reduced the yield.

In the Panjab the rains were late at sowing time, but the crop did well later when the rain came down abundantly.

In Madras the high prices of food-grains induced cultivators to restrict their sowings of indigo. The crop sown was very fair on the whole.

1901-02

In Bengal the season was on the whole unfavourable. During the early months of the year the rainfall was in slight defect, but in May there was good and generally well distributed rain. The monsoon rains broke late and were deficient in June and July. There was little

INDIGO

rain in October, and the showery weather at the end of November did not extend to north Bihar. Besides the unfavourable character of the season, the area was affected by the fall of prices resulting from the competition of synthetic indigo.

In the United Provinces the reduction of area was proportionately much greater than in Bengal. The prospects of the crop, which had been affected by the late arrival of the monsoon, continued to be unsatisfactory until the end of August, but fine dry weather in September favoured manufacture.

In the Panjab a restricted area was sown owing to late inundation from canals in the south-western districts and the closing of factories consequent on the fall in prices. There was an insufficiency of rain and canal irrigation after the sowings, and some injury was done by locusts.

In Madras an extended area was sown in Nellore and Kistna owing to favourable weather for sowings, but almost everywhere else the cultivation of indigo continued to decline. The low prices realised, and the high prices of food-grains, were the principal reasons assigned for the decrease, but in the Carnatic, where the decrease was marked, the season was very unfavourable.

1902-03

In Bengal the season was generally very unfavourable owing to capricious and ill-distributed rainfall; and the outturn was the worst on record. The unfavourable prospects of the industry caused by the competition of synthetic indigo also contracted the area, which had been steadily diminishing in past years.

In the United Provinces the decline in the cultivation of indigo caused by the fall in prices was very rapid and pronounced. The late commencement of the rains stunted the growth of the plant, which was further retarded in places by the continuous rain of July. The dry weather during August was, however, favourable and the produce of dye was reported to have been satisfactory.

In the Panjab the decrease in the area under indigo was almost as great as in the United Provinces, the contraction was due largely to the small margin of profit left by the fall in prices, but partly also to the insufficiency of canal water and unfavourable weather.

In Madras also the cultivation of indigo was fast declining as the low prices realised caused preference to be given to food-crops and earthnut. The crop was reported to be generally good.

1903-04

In Bengal the season opened unfavourably, the rainfall being very insufficient, but later good rain was received, and thenceforward the conditions were favourable.

In the United Provinces the monsoon was unusually late in arriving, and general rain was not received till the end of the third week of July. Injury from drought was therefore reported from some places; but the rains, when they did come, were good, and the damage was much less than had been anticipated. In the Doab, where the crop was promising from the beginning, the yield was satisfactory. Elsewhere it was not so good.

In the Panjab there was an extension of cultivation due to timely running of the canals and seasonable rainfall. The condition of the crop was also good.

In Madras also owing to good and timely rainfall the cultivation of indigo showed a slight improvement, and the condition of the crop was reported to be generally good.

1904-05

In Bengal the season was very unfavourable. During the months of January to April, June and September the rainfall was deficient; it was heavy in May and October, while in July and August the fall was excessive and did considerable damage to the crop in many districts of Bihar.

In the United Provinces sowings greatly contracted. Prospects were, however, good at the beginning of the season; but the heavy and continuous rain, which lasted from the second week of July to the last week of August, caused serious damage to the crop.

In the Panjab insufficiency of canal water interfered with sowing operations in most places. Conditions were, however, somewhat favourable in Multan, resulting in an increased area being sown in that district. The condition of the crop was good.

In Madras the area contracted to about half of that of the preceding year owing to scanty rains and fall in prices. The condition of the crop was generally fair.

1905-06

In Bengal the area contracted as usual. Owing to protracted cold weather sowings were begun later than usual in Bihar. The rainfall was irregular and damage was further done to the crop by excessive rain and floods. The season on the whole was thus very unfavourable.

In the United Provinces the area contracted to almost half of that of the preceding year. Hot winds and continued want of rain injuriously affected the crop in the Doab. In the rest of the province rain was sufficient.

In the Panjab there was an increase in the area sown, as compared with the preceding year, owing to early and satisfactory working of the canals. The condition of the crop was on the whole fair.

In Madras contraction in area continued owing partly to want of timely rains and partly to the extensive cultivation of food-crops in preference to indigo. The condition of the crop was reported to be generally fair.

SUGARCANE

1899-1900

In Bengal the season was generally favourable to the crop at the beginning, but excessive rain in some parts, in August, September, and October, adversely affected prospects, while in a few places the crop was injured by the absence of seasonable rainfall and by insects.

In the United Provinces the season was favourable until the autumn rains set in; but the excessive rainfall of June and July seriously injured it, and further injury was caused by the scanty rainfall of the succeeding months. Slight injury from insects was also reported from several districts.

In the Panjab the unfavourable weather conditions affected even the crop grown on irrigated lands, and cane grown on unirrigated land was practically a failure. The crop was stunted in growth and deficient in juice, while owing to the great scarcity of fodder, the cane was used entirely or very largely in many districts as cattle-food.

In Madras the weather in many places was unfavourable, and some of the crop suffered from want of water, especially in the Circars.

1900-01

In Bengal the rainfall to the end of July was generally in defect; in August it was badly distributed and more or less deficient; in September it was copious and general; there was very little in October, and in November and December practically none. On the whole, the monsoon conditions were not very favourable to the crop, which also, in a few districts, suffered to some extent from insect pests.

In the United Provinces the rains of February and March favoured sowings, and the crop germinated freely. Hot winds and afterwards insufficient rain in June and July retarded growth; but the crop was generally very healthy and promising. The rainfall was moderate in August, but unusually heavy in September, and accompanied by high east winds. Floods also caused some local injury on low lands. On the whole the autumn rains greatly benefited the crop. November was rainless, but December and January were exceptionally wet; and cane-pressing was delayed in places by excessive rain.

In the Panjab the area under cane was slightly reduced, owing to dry weather at sowing time in April and May and to the fact that prices of food-grains were so high that it was more profitable to grow them than sugar on some lands. In Hoshiarpur, one of the chief cane-producing districts in the province, another reason assigned for the decline was the supersession of indigenous by imported sugar. In Sialkot it was said that a great number of cultivators emigrated with their cattle to other places owing to the dearness of food and scarcity of fodder in the previous year, and as most of the cane crop was used as fodder in the preceding year, the supply of seed was small and the price high. Although there was, on the whole, a decline in the area under cultivation, both irrigated and unirrigated, the season was far more favourable than the previous year.

In Madras early rains and an adequate supply in tanks led to increased sowings. The condition and yield of the crop were generally fair.

1901-02

In Bengal, on the whole, the season was not unfavourable, but rain was very scanty in February, March, and April, and the crop suffered from locusts and insects in a few districts. In December and January again there was a complete absence of rain. The area sown was below the normal owing to the unfavourable character of the early part of the season.

In the United Provinces the rains of January and February 1901 were ample and germination was good, and the supply of water in the hot months was generally sufficient except in a few districts. Injury to the crop in several districts resulted from various causes—hot winds, insects, and the late arrival of the monsoon; but it was serious only in the Rohilkhand division and in parts of the Meerut division where the crop was attacked by grasshoppers. The autumn rain in July, though below the normal, was well distributed, and the rain in August was favourable and prospects improved materially, though the injury caused in the tracts mentioned could not altogether be made good. The season later on was too dry to give a full yield of juice. In the two important cane-growing divisions of Meerut and Rohilkhand the crop was unpromising from the beginning owing to the injury caused by grasshoppers, and the drought of September and October further affected growth. In the other divisions the yield was somewhat better.

In the Panjab the area under sugarcane increased in irrigated tracts, but elsewhere there was a contraction due to scanty rain in March and April. The crop suffered from insects, locusts, and rats, and seriously from drought in September and October and the severe frost that followed. The result was so bad that in parts of Gujranwala the juice was not extracted and the cane was given as fodder to the cattle. The crop on the whole was below the average and, compared with the area, the estimated yield was disproportionately small. Another reason assigned for the decline was the supersession of indigenous by foreign sugar.

In the North-West Frontier Province the crop was on the whole above the average. Though the failure of the rain at the time of its maturing caused some decrease in the yield, the decline was more than compensated by the increased area sown.

SUGARCANE

In Madras, on the whole, a full normal area was planted. Rainfall was deficient in some places; but the yield was on the whole fair, though in the Circars the crop was far from good, and in the Godavari delta disease caused material loss.

1902-03

In Bengal the season was not generally unfavourable, though excessive rain at the time of planting caused some contraction of area, and damaged the young plants in parts of north and east Bengal; while a few districts in Bihar, on the other hand, suffered from drought.

In the United Provinces the rains at sowing time—that is, February and March—were very deficient. Germination was, however, good except in the eastern districts, where later on drought and white-ants did further damage. The autumn rains in July were fairly continuous, well distributed, and generally above the normal. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over the greater part of the provinces, and in places some injury from drought resulted. The rainfall in September was almost uniformly excellent. Light rain was also received in October in most districts, while November and December were entirely rainless and were followed by severe frost, which damaged the crop more or less in the western half of the provinces just when pressing had begun.

In the Panjab there was a decrease in the area sown in all districts except Jalandhar and Karnál owing to the absence of rain and deficient supply in the canals in February and March. The monsoon rainfall of August and September was satisfactory, but the subsequent failure of the winter rains and the severe December frost deteriorated the condition of the standing crop, and in parts of Lahore, Sialkot, and Amritsar it was used as fodder. The yield on the whole was consequently below average.

In the North-West Frontier Province the season was favourable for the sugarcane crop, and the inadequate rainfall had very little effect on this crop as it is grown exclusively on irrigated lands, and the canal irrigation on which the crop depends was satisfactory.

In Madras there was a contraction in the area owing to the shortness of water-supplies in parts at the planting season. The decrease was general and was particularly noticeable in South Arcot where it was ascribed to a fall in the prices of jaggery. The crop was reported to be generally good.

1903-04

In Bengal, owing to the drought that prevailed throughout the greater part of the province in the early part of the season, the area contracted slightly. The cane-growing and harvesting seasons from June to December were, however, favourable and gave much better results than had been anticipated at first.

In the United Provinces the rains at sowing time—that is, February and March—were very deficient as was the case in the preceding year. The crop, however, germinated well and the supply of water for irrigation was generally sufficient. Injury from hot winds and the very late arrival of the monsoon was reported from a number of districts; but the damage done was serious only in the Rohilkhand and Benares divisions. The rainfall of August and September was very favourable; but abnormally heavy and continuous rain fell in the first fortnight of October in most places. November was rainless, while trifling showers fell in parts of Rohilkhand towards the end of December. The prospects of the crop somewhat deteriorated in consequence of the heavy and continuous October rain, and the strong winds which accompanied it laid the cane which flowered in places. The juice was accordingly reported to be thin and the outturn of *gur* lower than usual.

In the Panjab conditions were favourable for sowing and the monsoon rains, although somewhat delayed, were satisfactory. Excessive rain, however, caused some damage to the crop in low-lying lands, more specially in the riverain tracts of Sialkot and Amritsar. The crop also suffered from winter frosts in Ambala. In two tahsils of Gujranwala it was reported that about three-quarters of the entire crop was consumed as fodder, while in another it was damaged by insects. But nevertheless an average yield was harvested.

In the North-West Frontier Province the season was favourable throughout except in Peshawar where the matured crop suffered to a certain extent from the heavy rains in January. The canal irrigation on which the crop depends was slightly deficient in the Nowshera tahsil of that district, where, owing to an aqueduct being washed away, irrigation was interrupted for six weeks.

In Madras there was a contraction in the area sown owing partly to heavy rain at sowing time, but chiefly to the fall in the price of jaggery. The condition of the crop was reported to be generally good.

1904-05

In Bengal favourable conditions prevailed at the planting season; excessive rain however damaged the crop at the early stage of its growth in many districts, while drought generally prevailed in September and October. Some damage was also done to the standing crop by late floods in East Bengal and in Murshidabad, while the rest of the province continued to suffer from drought to the end of the season.

In the United Provinces the season was very favourable throughout. The rains in February and March favoured sowings and an extended area was sown. Germination was good and the supply of water for irrigation sufficient. The general rain in June was very opportune and greatly benefited the crop, which continued healthy and promising almost everywhere, although its full development was somewhat affected in places by insufficient rain in Septem-

ber. A succession of winter storms and cloudy weather in January, however, delayed pressing operations in some places.

In the Panjab general rain in March was favourable for sowings. The monsoon was late and unsatisfactory except in the south-east Panjab, but sugarcane being an irrigated crop did not suffer much from the deficiency in the rainfall. . Insects appeared in Gujranwala and Sialkot, and a portion of the crop was fed to cattle. The severe frosts of January-February did harm in the North Panjab, but most of the crop had been removed before the cold wave set in. The outturn of *gur* was satisfactory.

In the North-West Frontier Province heavy rain in March interfered with sowings; but the rest of the season was favourable throughout, except that the intense cold of January-February much retarded the cutting and pressing of the cane.

In Madras a larger area than in the preceding year was placed under the crop owing to the early supply of water in the channels and the rise in the price of jaggery. The condition of the crop was reported to be generally fair.

1905-06

In Bengal rainfall was irregular and ill-distributed, and the cane was damaged in places by pests and disease, but, on the whole, the season was not unfavourable to the crop.

In Eastern Bengal the season was generally unfavourable for sugarcane, the crop suffering from excessive rain at the planting season and from unusually high floods in September and October.

In the United Provinces rains at sowing time were ample and an extended area was planted, except in the Meerut and Agra divisions where damage by frost to the seed-canes restricted sowings. The monsoon was late, and some injury from hot winds and insects was reported; but the deficiency of rain after the monsoon broke affected the crop more seriously. Prospects further deteriorated in consequence of continued drought. In the Meerut, Agra, and Rohilkhand divisions, where from the beginning prospects were unfavourable, and the monsoon rain very deficient, the plant was stunted, and the quality of the juice inferior. In the rest of the province however the season was less unfavourable.

In the Panjab also the season was distinctly unfavourable. A fair fall of rain in July was followed by a two months' drought, which checked the development of the crop. Heavy rain in September effected only a partial improvement. Insect pests were also reported from places.

In the North-West Frontier Province the season was generally favourable for sowing. The standing cane was in some places slightly damaged by frost in the beginning of January, but latterly milder weather prevailed.

In Madras an extended area was planted owing partly to seasonable rainfall and partly to a rise in the price of jaggery. The condition of the crop was reported to be generally fair.

Tables of Area and Yield

ABSTRACT TABLE OF AREA AND PRODUCTION

				1891-92	1892-93	1893-94	1894-95	1895-96	1896-97
Rice	acres			49,539,031	48,358,707	49,525,300	50,002,241	49,396,747	48,021,462
	cwt			314,804,161	420,282,625	459,119,400	497,901,780	415,355,100	275,676,100
Wheat	acres			27,032,772	27,759,158	28,716,735	28,421,851	24,071,320	20,579,727
	tons			6,093,741	7,649,105	7,268,982	6,998,930	5,380,342	5,363,289
Cotton	acres			11,569,140	13,422,107	15,404,156	14,959,103	14,515,662	14,643,495
	bales (*a*)			2,386,276	2,318,028	2,556,537	2,239,019	2,882,042	2,651,597
Linseed	acres	pure		3,211,000	3,824,700	4,854,100	3,781,684	2,954,093	2,020,747
		mixed		545,000	604,000	503,000	603,000	560,000	345,000
	tons	pure		390,000	482,900	559,800	271,798	287,407	162,479
		mixed		97,000	94,000	65,000	53,899	82,462	58,504
Rape and mustard	acres	pure		1,175,100	3,674,900	3,676,000	3,582,181	3,004,913	2,910,682
		mixed		1,495,000	1,731,000	1,557,000	1,613,000	1,290,000	1,526,000
	tons	pure		175,272	622,580	546,216	521,031	462,064	441,814
		mixed		360,000	367,000	240,000	216,050	359,979	340,602
Sesamum	acres	pure		2,037,000	2,423,800	2,619,240	3,000,969	3,171,472	3,369,198
		mixed		551,000	407,000	509,000	448,000	560,000	672,000
	tons	pure		159,800	239,916	222,609	277,933	282,129	250,958
		mixed		32,000	40,000	50,000	40,000	55,000	45,000
Jute (*b*)	acres			...	2,135,142	2,222,600	2,264,300	2,242,700	2,196,600
	bales			...	5,717,400	5,001,700	6,144,300	5,551,000	5,717,000
Indigo	acres			...	1,218,766	1,552,008	1,688,042	1,414,002	1,608,901
	cwt			...	179,056	179,437	237,494	190,924	168,673
Groundnut	acres			...	...	...	...	243,400	306,026
	tons			...	...	...	...	...	...
Sugarcane	acres			...	...	...	...	...	...
	tons			...	...	...	...	...	...

(*a*) The production in bales for the years up to 1903-04 represents the quantities exported from India and consumed in the mills For 1904-05 the reported estimate of production, which is greater than the total of exports and mill consumption, has been stated For 1905-06 again the total of exports and consumption has been stated, as the estimate of production is much lower—see note (*e*) on page 42

(*b*) See foot notes on page 47 regarding the acreage and yield of jute

IN EACH YEAR FROM 1891-92 TO 1905-06

1897-98	1898-99	1899-1900	1900-01	1901-02	1902-03	1903-04	1904-05	1905-06		
52,205,466	52,682,050	51,969,635	48,932,493	48,511,190	51,842,390	49,461,465	51,586,900	51,080,500	acres	Rice
498,350,700	505,640,600	451,553,460	413,506,700	384,294,100	469,484,800	439,280,700	448,461,100	445,961,000	cwt	
24,537,775	25,370,078	18,687,782	23,864,550	23,446,161	23,395,277	28,413,743	28,470,200	26,226,200	acres	Wheat
7,208,384	6,837,674	5,357,142	7,093,529	6,090,524	7,971,446	9,641,145	7,582,040	8,560,340	tons	
13,683,437	14,602,892	11,884,576	14,231,150	14,506,295	16,581,046	18,025,000	19,918,000	20,401,000	acres	Cotton
2,653,710	3,140,130	2,093,521	2,703,648	3,310,733	3,750,549	3,579,643	3,826,000	4,237,000	bales (*a*)	
2,707,887	2,829,475	1,648,903	2,417,991	2,546,604	2,592,237	3,609,079	3,747,460	2,700,400	pure acres	Linseed
425,000	445,000	409,000	466,000	498,000	621,000	592,000	647,000	567,000	mixed acres	
354,994	336,610	206,220	247,024	251,808	359,568	466,832	298,400	265,400	pure tons	
90,976	91,284	89,464	79,000	100,113	122,000	105,000	49,000	88,000	mixed tons	
3,822,996	3,109,988	2,693,768	4,077,366	3,082,662	3,421,883	3,583,445	3,640,000	3,985,700	pure acres	Rape and mustard
1,459,000	1,509,000	1,381,000	1,449,000	1,461,000	2,335,000	2,429,000	2,509,000	2,026,000	mixed acres	
682,807	567,698	447,946	650,225	525,035	521,926	623,206	540,400	561,300	pure tons	
436,451	410,983	425,471	372,000	430,617	516,000	542,000	336,000	398,000	mixed tons	
3,662,109	3,530,625	3,316,067	4,052,491	3,711,711	4,435,648	4,838,164	4,178,700	3,945,600	pure acres	Sesamum
584,000	713,000	517,000	622,000	611,000	717,000	747,000	600,000	700,000	mixed acres	
355,817	348,118	213,256	72,856	96,210	93,587	539,478	300,400	351,100	pure tons	
60,000	70,000	60,000	75,000	60,000	80,000	70,000	35,000	45,000	mixed tons	
2,151,600	1,624,400	1,961,800	2,093,400	2,263,800	2,142,700	2,275,050	2,899,700	3,181,600	acres	Jute (*b*)
6,839,000	5,334,000	5,412,000	6,526,000	7,438,000	6,577,000	7,241,000	7,400,000	8,384,000	bales	
1,339,099	1,010,318	1,026,900	990,375	791,190	645,511	706,634	476,900	380,700	acres	Indigo
166,812	139,320	111,890	148,029	112,819	79,207	102,802	58,900	44,700	cwt	
214,803	217,814	173,946	294,408	434,222	491,155	474,193	459,700	488,900	acres	Groundnut
55,962	70,561	9,250	28,631	63,298	61,854	94,419	214,900	213,900	tons	
...	2,485,681	2,541,470	2,404,156	2,316,391	2,207,829	2,114,592	2,244,800	2,110,800	acres	Sugarcane
...	2,076,234	1,860,005	2,276,748	2,022,476	1,906,784	1,871,986	2,169,000	1,725,300	tons	

Note.—The figures for 1905-06 are subject to revision

RICE

Province	acres	cwt	Province	acres	cwt
Bengal (*a*)			*Lower Burma*		
1891-92	39,552,008	284,804,161	1891-92	4,215,023	(*b*)
1892-93	37,324,907	333,956,225	1892-93	4,625,600	50,346,000
1893-94	37,886,500	374,227,800	1893-94	4,928,600	47,874,000
1894-95	38,639,500	416,857,200	1894-95	4,793,341	45,381,980
1895-96	37,447,600	317,514,600	1895-96	5,068,147	41,481,000
1896-97	36,177,400	179,637,400	1896-97	5,224,062	47,679,000
1897-98	39,549,500	398,142,000	1897-98	5,720,766	52,217,000
1898-99	39,605,400	405,842,900	1898-99	5,910,650	44,851,000
1899-1900	39,490,500	357,956,360	1899-1900	6,050,135	54,160,000
1900-01	36,013,900	311,508,600	1900-01	6,326,993	52,975,000
1901-02	35,094,800	272,201,900	1901-02	6,558,190	60,602,000
1902-03	37,553,700	358,977,300	1902-03	6,553,890	53,022,000
1903-04	34,931,500	316,669,700	1903-04	6,761,665	64,411,000
1904-05	38,355,200	347,229,100	1904-05	6,909,900	60,735,000
1905-06	37,961,700	342,814,200	1905-06	6,634,100	57,940,000
Madras			*Total*		
1891-92	5,771,000	30,000,200	1891-92	49,539,031	314,804,161
1892-93	6,408,200	35,980,400	1892-93	48,358,707	420,282,625
1893-94	6,710,200	37,017,600	1893-94	49,525,300	459,119,400
1894-95	6,569,400	35,662,600	1894-95	50,002,241	497,901,780
1895-96	6,881,000	56,359,500	1895-96	49,396,747	415,355,100
1896-97	6,620,000	48,359,700	1896-97	48,021,462	275,676,100
1897-98	6,935,200	47,991,700	1897-98	52,205,466	498,350,700
1898-99	7,166,000	54,946,700	1898-99	52,682,050	505,640,600
1899-1900	6,429,000	39,437,100	1899-1900	51,969,635	451,553,460
1900-01	6,591,600	49,023,100	1900-01	48,932,493	413,506,700
1901-02	6,858,200	51,490,200	1901-02	48,511,190	384,294,100
1902-03	7,734,800	57,485,500	1902-03	51,842,390	469,484,800
1903-04	7,768,300	58,200,000	1903-04	49,461,465	439,280,700
1904-05	6,322,700	40,497,000	1904-05	51,586,900	448,461,100
1905-06	6,484,700	45,206,800	1905-06	51,080,500	445,961,000

(*a*) Includes Eastern Bengal
(*b*) Not stated
Note.—The figures for 1905-06 are subject to revision

WHEAT

Province	acres	tons	Province	acres	tons
Panjab and N.-W. Frontier			*Bengal (a)*		
1891-92	6,223,600	1,419,765	1891-92	1,300,000	250,000
1892-93	7,123,300	2,235,611	1892-93	1,559,000	466,000
1893-94	8,265,200	2,560,341	1893-94	1,461,000	459,000
1894-95	8,051,800	2,395,353	1894-95	1,413,000	686,300
1895-96	6,893,400	1,753,766	1895-96	1,427,400	345,600
1896-97	6,584,300	1,872,066	1896-97	1,341,700	386,900
1897-98	8,013,800	2,358,975	1897-98	1,569,500	592,600
1898-99	7,729,200	1,977,777	1898-99	1,582,500	656,400
1899-1900	6,366,500	1,823,182	1899-1900	1,550,300	572,700
1900-01	8,766,400	2,940,602	1900-01	1,498,700	472,600
1901-02	8,023,600	2,005,611	1901-02	1,408,300	391,500
1902-03	7,818,100	2,549,308	1902-03	1,417,000	485,900
1903-04	8,759,762	3,377,255	1903-04	1,508,600	527,800
1904-05	8,594,300	3,122,900	1904-05	1,324,900	433,200
1905-06	9,596,700	3,790,000	1905-06	1,259,000	400,000
			Eastern Bengal		
			1904-05	180,700	62,000
			1905-06	159,800	50,000
United Provinces			*Bombay (including Native States) (b)*		
1891-92	6,502,097	2,035,229	1891-92	2,176,000	426,000
1892-93	6,307,227	2,354,255	1892-93	2,475,000	654,000
1893-94	6,674,889	1,854,695	1893-94	2,525,000	762,000
1894-95	6,333,688	1,469,996	1894-95	2,678,665	744,961
1895-96	5,177,261	1,591,294	1895-96	2,288,838	454,865
1896-97	3,931,710	1,850,914	1896-97	1,446,741	288,002
1897-98	5,985,146	2,249,633	1897-98	2,004,832	627,914
1898-99	6,348,688	2,277,414	1898-99	2,470,998	737,385
1899-1900	6,202,826	2,410,052	1899-1900	1,157,077	99,408
1900-01	6,790,440	2,384,605	1900-01	1,433,810	298,479
1901-02	6,461,729	2,401,940	1901-02	1,510,459	179,034
1902-03	6,909,549	2,972,497	1902-03	1,797,245	532,601
1903-04	7,788,753	3,230,018	1903-04	2,174,076	560,279
1904-05	7,706,500	1 897,000	1904-05	2,260,900	356,600
1905-06	6,367,500	2,428,700	1905-06	1,309,900	270,700
Central Provinces			*Berar*		
1891-92	3,904,000	760,000	1891-92	888,000	136,055
1892-93	4,197,000	762,000	1892-93	985,000	166,395
1893-94	3,986,000	575,000	1893-94	928,000	170,893
1894-95	3,393,348	502,275	1894-95	889,326	150,232
1895-96	2,714,454	368,038	1895-96	747,025	103,084
1896-97	1,969,623	332,645	1896-97	381,425	23,413
1897-98	2,171,714	543,095	1897-98	390,378	41,983
1898-99	2,505,299	456,169	1898-99	436,362	53,571
1899-1900	1,633,070	201,803	1899-1900	17,910	414
1900-01	2,055,736	440,909	1900-01	243,554	29,900
1901-02	2,620,138	571,040	1901-02	280,085	34,385
1902-03	2,284,908	666,589	1902-03	216,955	34,625
1903-04	2,921,161	751,388	1903-04	452,663	70,052
1904-05	3,068,500	751,900	1904-05	428,600	80,000
1905-06	3,022,200	767,450	1905-06	424,300	60,350

(*a*) Includes Eastern Bengal up to 1903-04
(*b*) Includes the State of Baroda also
Note.—The figures for 1905-06 are subject to revision

WHEAT—*continued*

Province	acres	tons	Province	acres	tons
Sind (including Native States)			*Hyderabad (c)*		
1891-92	483,000	117,000	1891-92	1,942,824	96,238
1892-93	604,000	204,000	1892-93	1,262,506	97,315
1893-94	531,000	161,000	1893-94	1,162,503	109,234
1894-95	673,251	215,361	1894-95	1,412,562	69,413
1895-96	315,559	71,683	1895-96	1,454,451	85,331
1896-97	406,752	116,470	1896-97	772,990	18,585
1897-98	591,621	177,160	1897-98	1,003,175	30,139
1898-99	369,706	81,231	1898-99	1,113,431	33,098
1899-1900	364,522	68,226	1899-1900	339,136	1,538
1900-01	479,487	123,160	1900-01	636,247	12,279
1901-02	534,004	109,009	1901-02	603,182	38,853
1902-03	331,608	75,987	1902-03	614,092	53,724
1903-04	586,895	202,171	1903-04	1,134,769	100,535
1904-05	522,700	126,100	1904-05	1,126,600	89,700
1905-06	616,300	193,100	1905-06	934,500	40,400
Rajputana			*Mysore*		
1891-92	1,471,000	362,000	1891-92	2,125	154
1892-93	1,604,000	431,000	1892-93	2,640	189
1893-94	1,646,000	389,000	1893-94	(*d*)	(*d*)
1894-95	1,529,146	368,168	1894-95	4,534	304
1895-96	1,306,868	315,573	1895-96	5,456	363
1896-97	1,374,346	293,932	1896-97	3,871	413
1897-98	1,302,233	307,062	1897-98	4,363	331
1898-99	1,196,014	276,388	1898-99	4,029	492
1899-1900	360,733	79,289	1899-1900	2,758	254
1900-01	713,290	170,682	1900-01	2,556	197
1901-02	541,834	103,869	1901-02	3,714	256
1902-03	818,399	190,841	1902-03	5,123	531
1903-04	1,125,277	297,162	1903-04	5,718	630
1904-05	1,023,800	189,000	1904-05	5,300	440
1905-06	683,000	141,500	1905-06	2,400	140
Central India			*Total*		
1891-92	2,040,126	(*a*)491,300	1891-92	27,032,772	6,093,741
1892-93 (*b*)	1,639,485	278,340	1892-93	27,759,158	7,649,105
1893-94 (*b*)	1,537,143	227,819	1893-94	28,716,735	7,268,982
1894-95	2,042,531	396,567	1894-95	28,421,851	6,998,930
1895-96	1,740,608	290,745	1895-96	24,071,320	5,380,342
1896-97	1,366,269	179,949	1896-97	20,579,727	5,363,289
1897-98	1,501,013	279,492	1897-98	24,537,775	7,208,384
1898-99	1,613,851	287,749	1898-99	25,370,078	6,837,674
1899-1900	692,950	100,276	1899-1900	18,687,782	5,357,142
1900-01	1,244,330	220,116	1900-01	23,864,550	7,093,529
1901-02	1,459,116	255,027	1901-02	23,446,161	6,090,524
1902-03	1,182,298	408,843	1902-03	23,395,277	7,971,446
1903-04	1,956,069	523,355	1903-04	28,413,743	9,641,145
1904-05	2,227,400	473,200	1904-05	28,470,200	7,582,040
1905-06	1,850,500	418,000	1905-06	26,226,200	8,560,340

(*a*) Revised estimate (*b*) Incomplete (*c*) The figures for the years previous to 1902-03 exclude *jagir* areas
(*d*) No information *Note.*—The figures for 1905-06 are subject to revision

COTTON

Province	acres	bales of 400 lb
Bombay (including Native States) (a)		
1891-92	5,171,702	782,180
1892-93	5,286,411	1,044,928
1893-94	5,910,856	1,023,480
1894-95	5,292,717	880,240
1895-96	5,303,598	1,029,455
1896-97	5,033,549	827,819
1897-98	4,751,103	948,514
1898-99	5,098,145	1,232,861
1899-1900	3,095,206	(b)81,647
1900-01	4,240,140	759,096
1901-02	4,394,796	567,386
1902-03	4,786,657	943,327
1903-04	5,702,000	1,059,000
1904-05	5,955,900	796,000
1905-06	6,108,900	1,117,000
Berar (c)		
1891-92	2,244,000	345,566
1892-93	2,186,600	262,879
1893-94	2,184,800	291,597
1894-95	2,102,956	255,628
1895-96	2,071,856	451,230
1896-97	2,306,870	335,576
1897-98	2,150,329	439,980
1898-99	2,476,306	617,222
1899-1900	1,983,602	104,693
1900-01	2,521,651	730,962
1901-02	2,689,201	612,344
1902-03	2,765,685	710,068
1903-04	2,851,000	486,000
1904-05	3,069,000	755,000
1905-06	3,197,900	483,000
Madras (d)		
1891-92	1,243,000	80,000
1892-93	1,326,200	103,600
1893-94	1,724,000	121,200
1894-95	1,521,500	106,980
1895-96	1,623,900	120,524
1896-97	1,395,400	104,655
1897-98	1,509,100	118,876
1898-99	1,321,700	127,670
1899-1900	1,382,700	101,440
1900-01	1,373,300	118,320
1901-02	1,351,200	130,130
1902-03	1,580,900	167,109
1903-04	1,665,000	175,000
1904-05	1,755,000	132,000
1905-06	1,634,000	148,000

Province	acres	bales of 400 lb
Hyderabad (e)		
1892-93	1,384,450	168,004
1893-94	1,456,283	147,199
1894-95	1,611,912	117,277
1895-96	1,492,768	173,283
1896-97	1,558,296	137,152
1897-98	1,653,669	163,449
1898-99	1,738,379	222,302
1899-1900	1,292,329	91,975
1900-01	1,698,836	288,570
1901-02	1,689,139	300,301
1902-03	2,359,130	280,267
1903-04	2,661,000	275,000
1904-05	2,731,000	330,000
1905-06	2,537,000	197,000
United Provinces		
1891-92	1,011,985	163,997
1892-93	837,892	161,881
1893-94	1,069,307	296,643
1894-95	1,214,747	198,333
1895-96	1,060,905	280,414
1896-97	1,150,069	260,521
1897-98	919,671	225,478
1898-99	933,395	261,304
1899-1900	996,673	227,787
1900-01	1,046,176	294,169
1901-02	1,153,870	368,638
1902-03	1,239,131	327,728
1903-04	841,000	184,000
1904-05	1,201,000	368,000
1905-06	1,372,000	394,000
Panjab (f) and N.-W. Frontier		
1891-92	539,900	118,195
1892-93	948,300	200,888
1893-94	1,124,500	231,997
1894-95	1,161,200	241,667
1895-96	1,176,700	204,806
1896-97	1,128,400	223,947
1897-98	788,600	166,707
1898-99	988,400	138,926
1899-1900	1,215,400	205,203
1900-01	1,080,200	219,646
1901-02	1,057,200	220,225
1902-03	1,221,000	236,425
1903-04	1,241,000	269,000
1904-05	1,747,000	418,000
1905-06	2,017,000	205,000

(*a*) Includes the State of Baroda also

(*b*) The estimate for the year is too low, as the mill consumption for the year ending the 30th June and the net exports for the year ending the 30th September were 605,000 bales. For both the preceding and the following years the trade figures are however lower than the estimates, so that for the 3 years 1898—1901 the production would seem to be understated only by 109,000 bales. In this calculation the excess of the exports from the districts of the North and East Deccan over their reported production, which averages 208,000 bales in the twelve years 1891—1903, has been taken to represent imports by road into the Presidency from the neighbouring Native States

(*c*) The figures of production for Berar for the years previous to 1903-04 represent the mill consumption for the year ending the 30th June and the exports for the year ending the 30th September, as the provincial estimates of the outturn were extremely defective

(*d*) The estimates for Madras have hitherto excluded the *zamindari* tracts where a large amount of cotton is cultivated. No reliable statistics are available for these areas, but it was roughly estimated in 1901-02 that that season's yield which was taken at two-thirds of the normal, would be about 52,250 bales

(*e*) The figures for the years previous to 1902-03 exclude *jagir* areas

(*f*) Including certain Native States from 1904-05

Note.—The figures for 1905-06 are subject to revision

COTTON—*continued*

Province	acres	bales of 400 lb
Central Provinces		
1891-92	738,000	52,000
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	668,522	165,169
1899-1900	712,836	(*b*) 117,050
1900-01	1,004,812	268,958
1901-02	981,342	267,737
1902-03	1,136,431	260,798
1903-04	1,293,000	274,000
1904-05	1,484,000	474,000
1905-06	1,586,000	347,000
Rajputana		
1891-92	517,000	117,000
1892-93	500,400	133,300
1893-94 (*c*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	476,604	117,743
1899-1900	325,033	44,161
1900-01	369,384	104,390
1901-02	281,934	87,858
1902-03	456,503	164,142
1903-04	395,000	113,000
1904-05	469,000	186,000
1905-06	289,000	61,000
Central India		
1893-94 (*d*)	295,300	31,900
1894-95	512,936	38,000
1895-96	420,239	49,500
1896-97	522,683	45,900
1897-98	417,456	60,600
1898-99	471,408	46,800
1899-1900	479,565	23,100
1900-01	542,673	63,900
1901-02	529,094	72,200
1902-03	591,006	115,878
1903-04	772,000	125,000
1904-05	846,000	136,000
1905-06	968,000	129,000
Sind (including Native States)		
1891-92	103,553	38,677
1892-93	69,754	37,784
1893-94	115,810	75,081
1894-95	113,589	55,141
1895-96	111,855	51,018
1896-97	123,706	56,694
1897-98	108,227	40,176
1898-99	92,312	39,712
1899-1900	92,069	20,507
1900-01	84,560	43,031
1901-02	129,409	72,553
1902-03	195,486	110,808
1903-04	209,000	115,000
1904-05	221,000	97,000
1905-06	265,000	79,000

Province	acres	bales of 400 lb
Burma		
1898-99	167,821	—
1899-1900	148,563	32,900
1900-01	141,718	21,077
1901-02	130,610	13,125
1902-03	148,867	21,114
1903-04	165,000	27,000
1904-05	189,000	39,000
1905-06	189,000	37,000
Bengal (e)		
1892-93	229,900	73,612
1893-94	215,000	59,428
1894-95	206,200	63,871
1895-96	197,900	53,356
1896-97	157,100	40,184
1897-98	174,000	52,590
1898-99	167,900	45,560
1899-1900	160,600	39,705
1900-01	127,700	41,262
1901-02	118,500	32,094
1902-03	100,300	29,366
1903-04	96,000	28,000
1904-05	78,000	20,000
1905-06	73,000	17,000
Eastern Bengal and Assam		
1903-04 (*f*)	31,000	12,000
1904-05	50,000	17,000
1905-06	61,000	15,000
Mysore		
1903-04	70,000	13,000
1904-05	71,000	5,000
1905-06	76,000	5,000
Ajmer-Merwara		
1903-04	33,000	14,000
1904-05	52,000	53,000
1905-06	29,000	15,000

Total

	Acres	Outturn as shown above (in bales of 400 lb)	Net exports and mill consumption (in bales of 400 lb) (*g*)
1891-92	11,569,140	1,697,615	2,386,276
1892-93	13,422,107	2,272,716	2,318,028
1893-94	15,404,156	2,529,325	2,556,537
1894-95	14,959,108	2,223,029	2,239,019
1895-96	14,515,662	2,670,388	2,882,042
1896-97	14,643,495	2,264,890	2,651,597
1897-98	13,683,437	2,473,033	2,653,710
1898-99	14,602,892	2,915,269	3,140,130
1899-1900	11,884,576	1,090,168	2,093,521
1900-01	14,231,150	2,953,381	2,703,648
1901-02	14,506,295	2,744,591	3,310,733
1902-03	16,581,046	3,367,030	3,750,549
1903-04	18,025,000	3,168,000	3,579,643
1904-05	19,918,000	3,826,000	3,618,000
1905-06	20,401,000	3,249,000	4,237,000

(*a*) Exclusive of zamindári area in Raipur, Biláspur, and Sambalpur

(*b*) Represent exports and consumption of the years ending the 30th September as the reported estimates of the yield were imperfect

(*c*) Exclusive of Tonk

(*d*) Exclusive of the greater part of the Bhopal Agency

(*e*) Includes Eastern Bengal up to 1903-04

(*f*) Assam only

(*g*) For the years up to 1905-06 the exports are for the year ending the 30th September and the mill consumption for the year ending the 30th June. For 1905-06 both the exports and the mill consumption are for the year ending 30th June. No reliable information exists as to the annual consumption outside the mills but a million cwt or 280,000 bales is probably below the mark. The deficiency in the total of the estimates compared with the quantities exported and consumed which is especially noticeable in the year 1899-1900 cannot be satisfactorily allocated, but it is probable that the remaining errors are chiefly in the estimates of Native States

Note.—The figures for 1905-06 are subject to revision

LINSEED

Province	acres	tons
Bengal (a)		
1892-93	805,700	121,900
1893-94	777,100	131,800
1894-95	732,900	120,900
1895-96	712,700	95,600
1896-97	587,800	84,900
1897-98	662,800	125,400
1898-99	677,900	144,700
1899-1900	653,200	126,700
1900-01	806,700	133,400
1901-02	783,800	110,600
1902-03	864,200	160,000
1903-04	922,800	168,800
1904-05	730,400	96,600
1905-06	727,200	110,600
Eastern Bengal		
1904-05	99,000	17,500
1905-06	103,000	17,300
United Provinces		
1891-92 (*b*) Pure	622,000	110,000
1891-92 (*b*) Mixed	545,000	97,000
1892-93 Pure	481,000	74,000
1892-93 Mixed	604,000	94,000
1893-94 Pure	742,000	101,000
1893-94 Mixed	503,000	65,000
1894-95 Pure	753,857	69,165
1894-95 Mixed	603,000	53,899
1895-96 Pure	403,565	55,796
1895-96 Mixed	560,000	82,462
1896-97 Pure	235,166	40,036
1896-97 Mixed	345,000	58,504
1897-98 Pure	519,461	110,619
1897-98 Mixed	425,000	90,976
1898-99 Pure	438,728	87,854
1898-99 Mixed	445,000	91,284
1899-1900 Pure	357,880	73,267
1899-1900 Mixed	409,000	89,464
1900-01 Pure	448,206	75,780
1900-01 Mixed	466,000	79,000
1901-02 Pure	373,092	75,876
1901-02 Mixed	498,000	100,113
1902-03 Pure	536,044	114,595
1902-03 Mixed	621,000	122,000
1903-04 Pure	782,302	144,736
1903-04 Mixed	592,000	105,000
1904-05 Pure	634,500	51,800
1904-05 Mixed	647,000	49,000
1905-06 Pure	210,800	32,800
1905-06 Mixed	567,000	88,000
Central Provinces		
1891-92	1,388,000	112,000
1892-93	1,384,000	134,000
1893-94	1,788,000	132,000
1894-95	1,498,672	42,532
1895-96	730,750	45,253
1896-97	527,421	19,391
1897-98	683,728	69,783
1898-99	838,255	58,955
1899-1900	306,933	4,319
1900-01	495,165	20,652
1901-02	609,596	32,786
1902-03	494,137	42,352
1903-04	808,566	77,567
1904-05	825,700	67,300
1905-06	803,500	69,100
Hyderabad (c)		
1896-97	324,455	11,355
1897-98	438,030	15,141
1898-99	426,045	13,443
1899-1900	171,970	1,506
1900-01	371,983	8,774
1901-02	370,376	18,403
1902-03	378,559	22,343
1903-04	529,214	25,290
1904-05	775,800	93,500
1905-06	604,500	24,700

Province	acres	tons
Berar (d)		
1891-92	364,000	35,000
1892-93	354,000	21,000
1893-94	578,000	29,000
1894-95	385,563	13,893
1895-96	500,650	27,497
1896-97	188,142	4,576
1897-98	180,472	10,405
1898-99	171,085	7,683
1899-1900	21,564	—
1900-01	154,716	5,382
1901-02	185,738	9,606
1902-03	120,753	7,289
1903-04	184,823	18,617
1904-05	134,000	13,200
1905-06	96,700	7,700
Bombay (including Native States) (e)		
1891-92	270,000	19,000
1892-93	233,000	25,000
1893-94	402,000	52,000
1894-95	410,692	25,308
1895-96	606,428	63,261
1896-97	157,763	2,221
1897-98	223,396	23,646
1898-99	277,462	23,975
1899-1900	137,356	428
1900-01	141,221	3,036
1901-02	224,002	4,537
1902-03	198,544	12,989
1903-04	381,374	31,822
1904-05	548,000	18,500
1905-06	154,700	3,200
Rest of India		
1891-92	567,000	114,000
1892-93	567,000	114,000
1893-94	567,000	114,000
Total		
1891-92 Pure	3,211,000	390,000
1891-92 Mixed	545,000	97,000
1892-93 Pure	3,824,700	489,900
1892-93 Mixed	604,000	94,000
1893-94 Pure	4,854,100	559,800
1893-94 Mixed	503,000	65,000
1894-95 Pure	3,781,684	271,798
1894-95 Mixed	603,000	53,899
1895-96 Pure	2,954,093	287,407
1895-96 Mixed	560,000	82,462
1896-97 Pure	2,020,747	162,479
1896-97 Mixed	345,000	58,540
1897-98 Pure	2,707,887	354,994
1897-98 Mixed	425,000	90,976
1898-99 Pure	2,829,475	336,610
1898-99 Mixed	445,000	91,284
1899-1900 Pure	1,648,903	206,220
1899-1900 Mixed	409,000	89,464
1900-01 Pure	2,417,991	247,024
1900-01 Mixed	466,000	79,000
1901-02 Pure	2,546,604	251,808
1901-02 Mixed	498,000	100,113
1902-03 Pure	2,592,237	359,568
1902-03 Mixed	621,000	122,000
1903-04 Pure	3,609,079	466,832
1903-04 Mixed	592,000	105,000
1904-05 Pure	3,747,400	298,400
1904-05 Mixed	647,000	49,000
1905-06 Pure	2,700,400	265,400
1905-06 Mixed	567,000	88,000

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*c*) The figures for the years previous to 1902-03 exclude *jagir* areas

(*d*) The estimates of yield for the years previous to 1903-04 are defective, being based on incorrect data

(*e*) Includes the State of Baroda also

Note.—The figures for 1905-06 are subject to revision

RAPE AND MUSTARD

Province		acres	tons
Bengal (a)			
1892-93		2,256,000	372,300
1893-94		2,209,100	334,200
1894-95		2,221,600	343,700
1895-96		2,148,400	332,400
1896-97		2,003,900	312,300
1897-98		2,239,700	438,600
1898-99		2,167,200	448,200
1899-1900		2,032,900	371,900
1900-01		2,043,200	337,800
1901-02		1,922,400	372,900
1902-03		1,914,100	341,700
1903-04		1,973,900	365,500
1904-05		782,700	125,900
1905-06		751,900	116,000
Eastern Bengal			
1904-05		1,194,800	234,400
1905-06		1,094,500	168,900
Panjab and N.-W. Frontier			
1891-92		594,100	68,272
1892-93		849,900	134,720
1893-94		899,900	112,016
1894-95		802,600	97,224
1895-96		475,100	50,602
1896-97		515,300	52,756
1897-98		1,112,300	142,115
1898-99		582,600	56,041
1899-1900		397,500	26,761
1900-01		1,638,400	248,022
1901-02		739,500	73,084
1902-03		1,047,000	105,008
1903-04		1,169,131	176,363
1904-05		1,266,500	127,600
1905-06		1,699,700	194,900
Assam			
1891-92		168,000	36,000
1892-93		170,000	45,000
1893-94		168,000	34,000
1894-95		134,399	20,249
1895-96		182,640	36,388
1896-97		178,408	38,853
1897-98		167,268	31,878
1898-99		134,856	21,891
1899-1900		119,110	21,789
1900-01		126,309	21,140
1901-02		157,671	28,294
1902-03		174,719	27,905
1903-04		172,039	29,098
1904-05		157,700	28,000
1905-06		164,400	30,200
United Provinces			
1891-92 (*b*)	Pure	132,000	32,000
	Mixed	1,495,000	360,000
1892-93	Pure	126,000	27,000
	Mixed	1,731,000	367,000
1893-94	Pure	131,000	21,000
	Mixed	1,557,000	240,000
1894-95	Pure	109,347	16,497
	Mixed	1,613,000	216,050
1895-96	Pure	95,678	26,554
	Mixed	1,290,000	359,979
1896-97	Pure	83,372	18,524
	Mixed	1,526,000	340,602
1897-98	Pure	88,822	28,417
	Mixed	1,459,000	436,451
1898-99	Pure	92,679	22,884
	Mixed	1,509,000	410,983
1899-1900	Pure	76,180	21,186
	Mixed	1,381,000	425,471
1900-01	Pure	94,130	24,060
	Mixed	1,449,000	372,000
1901-02	Pure	120,436	36,841
	Mixed	1,461,000	430,617
1902-03	Pure	140,296	31,320
	Mixed	2,335,000	516,000
1903-04	Pure	131,926	29,643
	Mixed	2,429,000	542,000
1904-05	Pure	140,100	18,800
	Mixed	2,509,000	336,000
1905-06	Pure	154,700	30,000
	Mixed	2,026,000	398,000

Province		acres	tons
Sind (including Native States)			
1891-92		169,000	22,000
1892-93		140,000	20,000
1893-94		111,000	17,000
1894-95		222,413	24,852
1895-96		53,664	8,503
1896-97		72,093	11,101
1897-98		154,248	27,277
1898-99		70,766	8,601
1899-1900		64,637	6,193
1900-01		119,596	12,304
1901-02		113,140	12,049
1902-03		78,606	7,813
1903-04		85,525	16,550
1904-05		60,100	2,500
1905-06		66,700	11,600
Bombay (including Native States)			
1891-92		44,000	7,000
1892-93		65,000	13,000
1893-94		89,000	18,000
1894-95		91,822	18,509
1895-96		49,431	7,617
1896-97		55,615	8,207
1897-98		56,830	14,380
1898-99		53,091	9,795
1899-1900		2,536	111
1900-01		39,134	6,613
1901-02		17,438	1,721
1902-03		54,625	7,891
1903-04		36,007	5,786
1904-05		25,100	3,000
1905-06		39,500	9,600
Hyderabad (c)			
1896-97		1,994	73
1897-98		3,828	140
1898-99		8,796	286
1899-1900		905	6
1900-01		16,597	286
1901-02		12,077	146
1902-03		12,537	289
1903-04		14,917	266
1904-05		13,000	200
1905-06		14,300	100
Rest of India			
1891-92		68,000	10,000
1892-93		68,000	10,000
1893-94		68,000	10,000
Total			
1891-92	Pure	1,175,100	175,272
	Mixed	1,495,000	360,000
1892-93	Pure	3,674,900	622,580
	Mixed	1,731,000	367,000
1893-94	Pure	3,676,000	546,216
	Mixed	1,557,000	240,000
1894-95	Pure	3,582,181	521,031
	Mixed	1,613,000	216,050
1895-96	Pure	3,004,913	462,064
	Mixed	1,290,000	359,979
1896-97	Pure	2,910,682	441,814
	Mixed	1,526,000	340,602
1897-98	Pure	3,822,996	682,807
	Mixed	1,459,000	436,451
1898-99	Pure	3,109,988	567,698
	Mixed	1,509,000	410,983
1899-1900	Pure	2,693,768	447,946
	Mixed	1,381,000	425,471
1900-01	Pure	4,077,366	650,225
	Mixed	1,449,000	372,000
1901-02	Pure	3,082,662	525,035
	Mixed	1,461,000	430,617
1902-03	Pure	3,421,883	521,926
	Mixed	2,335,000	516,000
1903-04	Pure	3,583,445	623,206
	Mixed	2,429,000	542,000
1904-05	Pure	3,640,000	540,400
	Mixed	2,509,000	336,000
1905-06	Pure	3,985,700	561,300
	Mixed	2,026,000	398,000

(*a*) Includes Eastern Bengal up to 1903-04.

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*c*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1905-06 are subject to revision

SESAMUM

Province	acres	tons
Madras		
1891-92	501,000	26,700
1892-93	635,600	46,300
1893-94	717,500	51,300
1894-95	613,600	40,700
1895-96	824,700	54,700
1896-97	562,800	48,100
1897-98	826,000	69,000
1898-99	690,700	68,100
1899-1900	665,900	45,100
1900-01	850,000	68,200
1901-02	727,700	66,400
1902-03	782,700	71,700
1903-04	855,700	78,600
1904-05	674,200	55,100
1905-06	743,400	56,700
Bombay (including Native States) (a)		
1891-92	590,000	79,000
1892-93	703,500	105,500
1893-94	668,600	78,900
1894-95	754,072	100,438
1895-96	843,039	98,104
1896-97	770,553	65,600
1897-98	681,905	103,136
1898-99	754,327	115,566
1899-1900	303,148	6,186
1900-01	719,642	105,167
1901-02	802,935	64,421
1902-03	904,523	177,137
1903-04	1,128,055	218,219
1904-05	793,900	52,700
1905-06	816,700	98,600
Central Provinces		
1891-92	456,000	17,000
1892-93	503,000	33,000
1893-94	534,700	31,300
1894-95	520,099	27,714
1895-96	569,407	45,243
1896-97	627,948	43,953
1897-98	749,491	67,770
1898-99	634,268	43,475
1899-1900	1,026,257	62,132
1900-01	983,260	82,138
1901-02	710,641	39,020
1902-03	1,075,057	96,610
1903-04	962,296	73,551
1904-05	779,600	58,900
1905-06	778,200	66,900

Province	acres	tons
Panjab and N.-W. Frontier (b)		
1891-92	122,000	15,000
1892-93	204,500	25,900
1893-94	234,800	25,900
1894-95	319,200	31,917
1895-96	189,400	18,772
1896-97	223,400	21,379
1897-98	195,400	22,984
1898-99	252,600	25,350
1899-1900	216,400	16,253
1900-01	218,500	19,077
1901-02	211,500	17,640
1902-03	244,000	20,819
1903-04	246,600	26,143
1904-05	158,000	16,000
1905-06	146,000	13,900
Sind (including Native States)		
1891-92	103,000	(c) 7,800
1892-93	109,500	10,516
1893-94	177,740	12,309
1894-95	191,040	15,892
1895-96	151,038	12,052
1896-97	183,873	12,384
1897-98	154,812	8,260
1898-99	114,129	8,285
1899-1900	158,957	7,323
1900-01	105,881	4,468
1901-02	99,693	5,985
1902-03	118,044	7,602
1903-04	122,496	5,665
1904-05	83,700	5,300
1905-06	86,700	6,600
Berar (d)		
1891-92	123,000	6,300
1892-93	115,100	4,000
1893-94	85,300	3,200
1894-95	69,715	2,359
1895-96	76,155	2,704
1896-97	103,298	3,515
1897-98	135,164	6,573
1898-99	135,483	5,620
1899-1900	116,089	1,436
1900-01	149,022	9,554
1901-02	118,249	2,958
1902-03	138,092	5,402
1903-04	121,551	11,630
1904-05	111,500	10,100
1905-06	105,600	9,500

(*a*) Includes the State of Baroda also

(*b*) The figures of both area and yield from 1904-05 relate to Panjab only, the forecast of the sesamum crop of the N.-W. F. Province having been discontinued from that year

(*c*) Incomplete

(*d*) The estimates of yield for the years previous to 1903-04 are defective, being based on incorrect data

Note.—The figures for 1905-06 are subject to revision

SESAMUM—*continued*

Province	acres	tons	Province	acres	tons
Bengal (*a*)			*Hyderabad* (*c*)		
1894-95	356,200	43,400	1896-97	387,041	13,005
1895-96	368,900	36,000	1897-98	404,020	13,200
1896-97	332,500	30,800	1898-99	426,740	14,463
1897-98	367,500	49,900	1899-1900	237,512	2,383
1898-99	367,200	52,100	1900-01	392,032	10,421
1899-1900	388,200	49,700	1901-02	377,023	21,660
1900-01	396,000	45,400	1902-03	472,282	34,038
1901-02	411,100	54,900	1903-04	601,607	33,325
1902-03	384,800	45,000	1904-05	780,000	29,400
1903-04	428,300	58,000	1905-06	465,600	18,400
1904-05	283,800	30,800			
1905-06	293,400	34,700			
Eastern Bengal					
1904-05	209,900	28,200			
1905-06	231,800	28,300			
United Provinces			*Total*		
1891-92 (*b*) Pure	142,000	8,000	1891-92 Pure	2,037,000	159,800
1891-92 (*b*) Mixed	551,000	32,000	1891-92 Mixed	551,000	32,000
1892-93 Pure	152,600	14,700	1892-93 Pure	2,423,800	239,916
1892-93 Mixed	407,000	40,000	1892-93 Mixed	407,000	40,000
1893-94 Pure	200,600	19,700	1893-94 Pure	2,619,240	222,609
1893-94 Mixed	509,000	50,000	1893-94 Mixed	509,000	50,000
1894-95 Pure	177,043	15,513	1894-95 Pure	3,000,969	277,933
1894-95 Mixed	448,000	40,000	1894-95 Mixed	448,000	40,000
1895-96 Pure	148,833	14,554	1895-96 Pure	3,171,472	282,129
1895-96 Mixed	560,000	55,000	1895-96 Mixed	560,000	55,000
1896-97 Pure	177,785	12,222	1896-97 Pure	3,369,198	250,958
1896-97 Mixed	672,000	45,000	1896-97 Mixed	672,000	45,000
1897-98 Pure	147,817	14,994	1897-98 Pure	3,662,109	355,817
1897-98 Mixed	584,000	60,000	1897-98 Mixed	594,000	60,000
1898-99 Pure	155,178	15,159	1898-99 Pure	3,530,625	348,118
1898-99 Mixed	713,000	70,000	1898-99 Mixed	713,000	70,000
1899-1900 Pure	203,604	22,743	1899-1900 Pure	3,316,067	213,256
1899-1900 Mixed	517,000	60,000	1899-1900 Mixed	517,000	60,000
1900-01 Pure	238,154	28,431	1900-01 Pure	4,052,491	372,856
1900-01 Mixed	622,000	75,000	1900-01 Mixed	622,000	75,000
1901-02 Pure	252,870	23,226	1901-02 Pure	3,711,711	296,210
1901-02 Mixed	611,000	60,000	1901-02 Mixed	611,000	60,000
1902-03 Pure	316,150	35,279	1902-03 Pure	4,435,648	498,587
1902-03 Mixed	717,000	80,000	1902-03 Mixed	717,000	80,000
1903-04 Pure	374,559	34,345	1903-04 Pure	4,838,164	539,478
1903-04 Mixed	747,000	70,000	1903-04 Mixed	747,000	70,000
1904-05 Pure	304,100	13,900	1904-05 Pure	4,178,700	300,400
1904-05 Mixed	600,000	35,000	1904-05 Mixed	600,000	35,000
1905-06 Pure	278,200	17,500	1905-06 Pure	3,945,600	351,100
1905-06 Mixed	700,000	45,000	1905-06 Mixed	700,000	45,000

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate.

(*c*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1905-06 are subject to revision

JUTE

Province	acres*	bales of 400 lb
Bengal (a)		
1892	2,135,100	5,717,400
1893	2,222,600	5,001,700
1894	2,264,300	6,144,300
1895	2,242,700	5,551,000
1896	2,196,600	5,717,000
1897	2,151,600	6,839,000
1898	1,624,400	5,334,000
1899	1,961,800	5,412,000
1900	2,093,400	(b) 6,526,000
1901	2,263,800	7,438,000
1902	2,108,300	6,577,000
1903	2,213,600	7,241,000
1904	2,850,000	7,400,000
1905	3,145,000	(c) 8,249,000
Assam		
1902	34,400	48,000
1903	38,250	(d) 90,000
1904	29,700	46,000
1905	36,600	82,800

Province	acres	bales of 400 lb
Cooch Bihar		
1903	23,200	(d) 50,000
1904	20,000	(d) 36,000
1905	(e)	52,800
Total		
1892	2,135,100	See under Bengal
1893	2,222,600	
1894	2,264,300	
1895	2,242,700	
1896	2,196,600	
1897	2,151,600	
1898	1,624,400	
1899	1,961,800	
1900	2,093,400	
1901	2,263,800	
1902	2,142,700	
1903	2,275,050	
1904	2,899,700	
1905	3,181,600	8,384,600

INDIGO

Province	acres	cwt
Bengal (a)		
1892-93	645,950	92,606
1893-94	648,928	67,285
1894-95	629,100	104,485
1895-96	552,700	73,133
1896-97	582,200	56,671
1897-98	529,500	50,415
1898-99	512,100	74,321
1899-1900	449,200	44,996
1900-01	360,600	47,707
1901-02	311,200	41,820
1902-03	255,500	21,924
1903-04	249,700	31,895
1904-05	223,100	24,300
1905-06	170,700	14,200
United Provinces		
1891-92	201,269	20,533
1892-93	206,516	26,545
1893-94	349,980	38,106
1894-95	420,242	41,524
1895-96	342,102	33,786
1896-97	436,601	40,713
1897-98	376,899	37,545
1898-99	240,418	26,416
1899-1900	231,400	17,977
1900-01	262,175	31,529
1901-02	168,990	18,986
1902-03	135,811	10,007
1903-04	140,834	12,823
1904-05	74,500	8,000
1905-06	40,700	4,200
Madras		
1891-92	166,130	18,540
1892-93	301,000	50,420
1893-94	442,400	58,100
1894-95	514,500	67,480
1895-96	414,900	63,680
1896-97	454,700	50,740
1897-98	323,900	61,460
1898-99	210,600	30,320
1899-1900	249,000	33,340
1900-01	251,900	46,100
1901-02	239,400	38,480
1902-03	212,200	40,260
1903-04	241,900	45,900
1904-05	126,300	16,700
1905-06	101,800	15,500
Panjab		
1891-92	52,200	9,256
1892-93	65,300	10,085
1893-94	110,700	15,946
1894-95	124,200	24,005
1895-96	104,300	20,325
1896-97	135,400	20,549
1897-98	108,800	17,392
1898-99	47,200	8,263
1899-1900	97,300	15,577
1900-01	115,700	22,693
1901-02	71,600	13,533
1902-03	42,000	7,016
1903-04	74,200	12,184
1904-05	53,000	9,900
1905-06	67,500	10,800
Total		
1891-92 (f)	419,599	48,329
1892-93	1,218,766	179,056
1893-94	1,552,008	179,437
1894-95	1,688,042	237,494
1895-96	1,414,002	190,924
1896-97	1,608,901	168,673
1897-98	1,339,099	166,812
1898-99	1,010,318	139,320
1899-1900	1,026,900	111,890
1900-01	990,375	148,029
1901-02	791,190	112,819
1902-03	645,511	79,207
1903-04	706,634	102,802
1904-05	476,900	58,900
1905-06	380,700	44,700

* The estimates of the area under jute in Bengal have been based on very uncertain data, but special efforts were made in 1904 to obtain a correct estimate

(a) Including Eastern Bengal

(b) Revised according to the statistics of trade and consumption, and including the production of Assam, Cooch Bihar, and Nepal

(c) Including 41,000 bales for Nepal

(d) Included in the production of Bengal

(e) Not reported

(f) Excluding Bengal

Note.—The figures for 1905-06 are subject to revision

GROUNDNUT

Province	acres	tons (a)
Madras		
1895-96	243,400	(b)
1896-97	157,300	
1897-98	94,500	
1898-99	116,200	
1899-1900	102,000	
1900-01	229,997	
1901-02	337,600	
1902-03	421,300	
1903-04	384,400	
1904-05	366,400	151,700
1905-06	393,100	174,500
Bombay (including Native States)		
1896-97	148,726	(b)
1897-98	120,303	(c) 55,962
1898-99	101,614	70,561
1899-1900	71,946	9,250
1900-01	64,411	28,631
1901-02	96,622	63,298
1902-03	69,855	61,854
1903-04	89,793	94,409
1904-05	93,300	63,200
1905-06	95,800	39,400

Provinces	acres	tons
Total		
1895-96	(d) 243,400	(b)
1896-97	306,026	
1897-98	214,803	55,962
1898-99	217,814	70,561
1899-1900	173,946	9,250
1900-01	294,408	(e) 28,631
1901-02	434,222	63,298
1902-03	491,155	61,854
1903-04	474,193	94,419
1904-05	459,700	214,900
1905-06	488,900	213,900

SUGARCANE

Province	acres	tons
Bengal (f)		
1898-99	861,100	871,485
1899-1900	884,400	817,185
1900-01	801,800	811,420
1901-02	661,200	676,410
1902-03	673,500	681,580
1903-04	632,400	653,900
1904-05	449,400	444,900
1905-06	446,900	452,300
Eastern Bengal		
1904-05	183,600	189,800
1905-06	176,100	162,700
United Provinces		
1898-99	1,227,881	1,204,799
1899-1900	1,259,070	838,885
1900-01	1,212,456	1,193,214
1901-02	1,228,691	976,222
1902-03	1,151,777	904,132
1903-04	1,089,602	877,102
1904-05	1,212,600	1,183,400
1905-06	1,228,900	884,000
Panjab		
1898-99	351,200	(b)
1899-1900	343,600	203,935
1900-01	334,500	272,114
1901-02	351,500	239,105
1902-03	309,400	204,012
1903-04	321,200	232,664
1904-05	325,500	238,300
1905-06	172,700	89,000

Province	acres	tons
Madras		
1898-99	45,500	(b)
1899-1900	54,400	
1900-01	55,400	
1901-02	51,100	109,400
1902-03	46,500	93,400
1903-04	44,300	83,700
1904-05	47,800	90,000
1905-06	60,600	114,500
N.-W. Frontier		
1901-02	23,900	21,339
1902-03	26,652	23,660
1903-04	27,090	24,620
1904-05	25,900	22,600
1905-06	25,600	22,800
Total		
1898-99	2,485,681	2,076,234
1899-1900 (g)	2,541,470	1,860,005
1900-01	2,404,156	2,276,748
1901-02	2,816,391	2,022,476
1902-03	2,207,829	1,906,784
1903-04	2,114,592	1,871,986
1904-05	2,244,800	2,169,000
1905-06	2,110,800	1,725,300

(a) The average outturn per acre in Madras has been provisionally fixed at 1,344 lb of nuts in shell. In Bombay where groundnut is mainly grown with the help of irrigation a good average crop is 3,200 lb.

(b) No information (c) Excluding Native States (d) Madras only (e) In Bombay only

(g) Incomplete (f) Includes Eastern Bengal up to 1903-04

Note.—The figures for 1905-06 are subject to revision

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Ninth Issue]

COMMERCIAL INTELLIGENCE DEPARTMENT
INDIA

AREA AND YIELD

OF CERTAIN

PRINCIPAL CROPS IN INDIA

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

SUGARCANE

FOR VARIOUS PERIODS FROM

1892-93 TO 1906-07

CALCUTTA
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA
1907

Price Five Annas

BOMBAY BRANCH
OF THE
Royal Asiatic Society.

INTRODUCTORY NOTE

IN the course of each year periodical estimates of the area and yield of certain crops are compiled in the Commercial Intelligence Department from local returns and issued by the Government of India.

The general practice is to issue a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two, but for both cotton and sesamum, of which there are early and late varieties, four reports are issued. The summaries in the present publication are a condensation with corrections of the final estimates, presenting in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables, abstracted from those appended to the final estimates, and in these are stated the area sown and the estimated yield of the crops. The estimates are not made for the whole of India and they are necessarily, in the most favourable circumstances, only approximations to the truth. The very complete agricultural records in most of the provinces in connection with the assessment of the land revenue render it possible in many cases to state with great exactness the area sown with each crop; but an equally important factor in determining the outturn, namely, the average yield per acre, has to be estimated, and exactness can be obtained only by the most careful consideration of the classes of soil, the methods of cultivation, and the climatic conditions which depend mainly on the quantity and timeliness of the rainfall in every part of the reporting areas. The quantitative estimates are thus often imperfect and they have generally been too low. The attention recently paid to the estimates of the cotton and wheat crops showed that some of the estimates relating to past years were extremely defective, but measures have been taken which appear already to have effected a substantial improvement. The revision of the estimates which was attempted has however been only partially successful, for the reason that there are large unregistered movements of cotton across provincial boundaries by road, while the information from some of the Native States is defective and the internal consumption other than that in mills defies accurate computation. In view of the carrying over of stocks from one year to another it is interesting to calculate the averages on the figures given at page 42. Estimates of area and production are now received from various areas which were formerly unreported; but figures for the *zamindari* and "whole *inam*" areas in Madras are still lacking.

Attention has also been paid to the improvement of the jute forecasts, and the yield for past years, from 1895 to 1904, has been corrected by the statistics of exports and consumption, but the estimates of the area cultivated are based on data, which are still uncertain although they have recently been improved. Next to those for cotton and jute the estimates of acreage are most complete in respect of wheat, and the only wheat-growing areas of any importance for which forecasts have not been obtained, are the Native States of the Panjab. For the other crops, however, the estimates of area apply only to the specified regions where those crops are largely grown, and not to the whole of India. Thus, the rice estimates relate only to Bengal, Eastern Bengal and Assam, Lower Burma, and Madras, and those for sugarcane to

Bengal, Eastern Bengal and Assam, Madras, the United Provinces, the Panjab, and the North-West Frontier. Again, for the reporting territories the estimates are sometimes imperfect, for, with some exceptions, those tracts have been excluded which have not been accurately surveyed or are held under privileged tenures, and hence do not possess the regular establishments maintained elsewhere for reporting the area placed under each crop. The most serious omission from this cause is in the figures for Madras, which is a large producer of rice, cotton, sesamum, and indigo, but which has hitherto made forecasts only for the Government villages or about two-thirds of the area of the British districts. The Feudatory States within provincial boundaries are also generally omitted from the forecasts of all the provinces except Bombay and Sind. But for these omissions and a certain element of uncertainty in regard to crops which are grown conjointly or interspersed in the same field, the estimates of area relating to the Panjab, the United Provinces, the Central Provinces, Berar, and Madras may be regarded as fairly exact. The statistics for the British districts of Bombay are also very correct, but in this publication they are combined with the more conjectural figures of the provincial Feudatory States in which a large proportion of the cotton, oilseeds, and wheat is grown. The statistics of area for Bengal and Eastern Bengal which relate to nearly the whole of the cultivated portion of the province, omitting unimportant Feudatory States, are also conjectural since they consist of estimates which are founded on information of varying degrees of accuracy and which have been verified by cadastral survey in respect of only about 34 per cent for Bengal and 19 per cent for Eastern Bengal.

The statistics for the State of Hyderabad and the numerous States in the Central India and Rajputana Agencies rest on data similar to those of British India, and like them mostly refer to tracts in which there exists a reporting agency not equal in efficiency to that of the neighbouring British Provinces. Estimates are also included for some of the revenue-free lands held on privileged tenures.

FREDERICK NOËL-PATON,

Director-General of Commercial Intelligence

July 1, 1907

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AREA AND YIELD

OF CERTAIN

PRINCIPAL CROPS IN INDIA

SUMMARY OF THE CONDITIONS OF THE SEASON FROM 1892-93 TO 1906-07

RICE

1892-93

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.
In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.
In Burma conditions were good everywhere.

1893-94

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.
In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.
In Burma the season was favourable.

1894-95

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.
In Madras the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.
In Burma the crop suffered somewhat from insufficient rain.

1895-96

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.
In Madras the crop generally was fair, though in some places, in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.
In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

1896-97

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.
In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.
In Burma the season was favourable and the crop excellent.

1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

RICE

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

1898-99

In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900

In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01

In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

1901-02

In Bengal the season was not entirely favourable for the autumn rice. From April to August the rainfall was unevenly distributed, and in July it was deficient almost everywhere. General and copious rain fell in September, but in October the rains ceased abruptly. For the winter rice the season was more unfavourable. The abrupt termination of the monsoon in September, for there was very little general rain in October, did great injury to the crop, and in all the Bihar districts, where the rainfall in June was also very deficient, it was a failure. The weather was seasonable during transplantation which led to an increase in the area sown.

In Madras the season was not so favourable for early planting as in 1900, but owing to good supplies of water from the irrigation works and generally good rain in August and September an area about equal to the average yielded a crop rather more than the average of recent years.

In Burma conditions were favourable. Rain fell at the end of the first week in February, but the crop, which was greatly in excess of the average, was but very slightly injured.

1902-03

In Bengal the season was not quite favourable for the autumn rice. The ante-monsoon showers were abnormally heavy, and the monsoon rainfall which came somewhat late was unevenly distributed. October was abnormally dry and November was literally rainless. For the winter rice the season, though capricious, was not unfavourable. The weather was seasonable during transplantation. And had it not been for the deficiency of the October rains, the crop would have been much above the average.

In Madras, there was an increase in the area sown chiefly in Cuddapah, Chingleput, and North Arcot, owing to the favourable character of the season. The condition of the crop was generally good.

In Burma floods caused damage in Tharawady and Thongwa and a decrease in cultivation in Henzada. In Myaungmya the fallow area was large owing to cattle disease and sickness among the cultivators, and in Prome owing to untimely rainfall ; otherwise prospects were bright.

1903-04

In Bengal the season was generally unfavourable for the autumn rice owing to a deficient rainfall in the early part of the season and heavy falls at and after the harvest. For the winter rice also the season was not altogether favourable, for although general and abundant rainfall was received at the latter part of the season, the defect at the beginning and, except in Orissa and North Bengal, in the total fall of the season affected not only the area sown, but also the growth of the plants.

In Madras an extended area was sown owing to good and timely rainfall. The condition of the crop was reported to be fair,

RICE

In Burma prospects were very favourable, though slight damage had been caused by rain in some districts. The quality of the new grain was reported to be excellent.

1904-05

In Bengal the rainfall was unseasonable and ill-distributed, and in many parts of Bihar heavy rain and floods did considerable damage to the autumn rice. For the winter rice also the season was not a favourable one, though sowings were over a larger area than in the preceding year. The crop suffered from drought from the middle of September, but in Bihar it was to a great extent saved by good rain in the latter part of October. A flood in Eastern Bengal in November did considerable damage to the standing crop, while the rest of the province continued to suffer from the drought.

In Madras a restricted area was sown owing to the failure of the rains; and the crop withered in parts from want of moisture.

In Burma the sowing rains were seasonable and sufficient, and consequently an extended area was sown. The crop, however, suffered in places from floods and high winds, and in consequence of the unfavourable break in the rains during October the grain threshed out light in several districts.

1905-06

In Bengal rainfall was ill-distributed. Heavy rain and consequent floods damaged both the autumn and the winter crops in North Bihar and Eastern Bengal, especially in the deltaic districts; while deficiency of rain affected the crops in Orissa and Chota Nagpur.

In Madras rainfall was timely, and the condition of the crop was reported to be fair to good.

In Burma a considerable area was destroyed by floods. Except in the flooded areas conditions were generally favourable.

1906-07

In Bengal sowings of autumn rice were late, as the whole of April and the early portion of May were very dry, and the rainfall continued insufficient in the Burdwan and Orissa Divisions. On the other hand Bihar was visited by disastrous floods; and several districts of Bengal similarly suffered more or less severely. In Chota Nagpur alone were prospects satisfactory. Elsewhere the season was decidedly unfavourable. For the winter crop also the season on the whole was an unfavourable one, owing to unseasonable rainfall and damage caused by heavy floods, particularly in North Bihar.

In Eastern Bengal and Assam the season was characterised by floods and was therefore unfavourable to autumn rice. For the winter crop the season was favourable, as the floods subsided in time to allow of fresh transplantation in many fields where the crop had been washed out, and subsequent weather conditions were good.

In Madras rainfall was seasonable, and the crop was reported to be generally fair to good.

In Burma rains commenced somewhat late and were generally below the average. Middle rains were scanty. Conditions, however, turned out to be generally satisfactory owing to beneficial later rains.

WHEAT

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the United Provinces the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and was favourable to germination. The winter rains benefited the crop, especially on unirrigated land.

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

In Bombay the late rain was sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnátak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the United Provinces the monsoon set in unusually early and rain was excessive and ontinuous from July to October. Dry weather continued to the end of December, and rain

WHEAT in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

In Bombay the monsoon rainfall was excessive for *kharif* sowings and the area left unsown was utilized for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnátak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

1894-95 In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the United Provinces the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable and rust was common.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Hyderabad heavy rain late in the season reduced the yield.

1895-96 In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the United Provinces the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

1896-97 In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the United Provinces the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In Hyderabad the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second-half of May damaged the grain on the threshing-floors.

In the United Provinces the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

In Bengal the season was favourable; the autumn rain was copious and well distributed, and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In Hyderabad the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the United Provinces the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable: the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second-half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient inundation, and scanty rainfall.

In Hyderabad the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the third week of January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the United Provinces the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

WHEAT

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attempted on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was an almost absolute failure.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In Hyderabad the conditions and results were similar to those in Berar.

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands, and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail floods, excessive rain, and water-logging, as also, when it was on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the United Provinces the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield.

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarat rust, insects, and cloudy weather did harm. In the Deccan and Karnátak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

In Hyderabad sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.

In Rajputana and Central India both area and yield were much below the average.

1901-02

In the Panjab the monsoon rainfall was less plentiful than usual and ceased early; the winter rains failed entirely. There were no late sowings, and the whole crop went practically without rain until the latter half of March when slight showers saved the withering crop from total destruction in some places. High winds and severe frost in February also proved detrimental to the standing crop, and the yield was decidedly below the average. On irrigated lands the failure was far more extensive. On lands irrigated by wells a considerable part of the crop was in some places used as fodder for cattle.

In the North-West Frontier Province the season throughout was one of unusual drought. From October to the end of February no rain fell and sowings on unirrigated lands were much reduced; the crop, where sown, in most cases withered away in March. A normal area was sown on irrigated lands which account for one-third of the crop of the season.

In the United Provinces the monsoon of 1901 was abnormally delayed, and general rain did not set in until the 10th of July. The fall in July and August was well distributed and sufficient; but in the next two months it was deficient in the Meerut division and in parts of Agra and Rohilkhand where sowings in most places were effected with the aid of irrigation. November and the first three weeks of December were entirely rainless, and irrigation was resorted to wherever possible. The season was unusually dry and the unirrigated crop suffered generally from drought.

In Bengal the rainfall in Bihar was deficient in September and seriously in defect in October, and there was practically no rain until March, when it was too late to benefit the crop. There was a contraction in the area sown owing to drought at the sowing season in Bihar where the yield was much below the normal.

WHEAT

In the Central Provinces the season was abnormally dry, the October rain on which the germination of wheat largely depends, being represented by only a few local showers, and there was no rain thereafter except in the first-half of January in some places. Frost, rats, and insects also injured the crop.

In Berar the monsoon rainfall was in excess of the normal, and although there were no winter rains, the moisture in the soil at sowing time was sufficient to promote the growth of the young plants and to bring the wheat satisfactorily into ear. At this stage, however, rats appeared in large numbers and did considerable injury, destroying in some localities almost the whole crop of the field in a single night.

In Bombay there was a contraction in the area sown owing to the deficiency of late rain. In Gujarat and north Deccan, the September rain was very deficient and sowings made little progress until after the October rains. No rain fell in November and December, and the crop suffered considerably not only from want of surface moisture, but also from the scanty supply in the wells. The surviving crop was further almost destroyed by a very severe plague of rats. In the south Deccan and the Karnátak, the September rain was generally sufficient, but that in October was below the average and checked full sowings. Later rains were light and partial and the crop withered in many places, particularly in the eastern tracts where no rain fell and no irrigation was possible. Damage by insects and disease was also reported from a few places. The Sind crop was fairly good.

In Hyderabad conditions were at first somewhat favourable, but rats did considerable injury in places and over a large area; the late rains were also not favourable.

In Rajputana both area and yield were much below the average. In Central India the area and yield were larger than the quinquennial average, but a little short of the decennial average.

1902-03

In the Panjab conditions were favourable for early sowing on irrigated lands, and a considerable area was sown, except in the Mooltan division where canal water and rainfall were insufficient. The practical absence of rain until the fourth week of January rendered late sowings on dry lands impossible, and caused much injury to crops on such lands. In the submontane and central districts good rain in January considerably improved prospects. February was practically rainless, and a very anxious period ensued until the advent of copious, frequent, and general rain in March. Good showers continued well into April, which was beneficial as the crop was very backward. On the whole the conditions were favourable at the beginning and end of the season, but the prolonged drought in the middle of the season caused considerable injury to the crops on dry lands.

In the North-West Frontier Province, on the whole the season was a favourable one. Conditions of the weather were very similar to that in the Panjab. The crop came to maturity in a good healthy condition, but the quality of the grain was damaged to some extent when it was lying on the threshing-floor by the heavy rains of April and May.

In the United Provinces rainfall in September and October was favourable for the preparation of fields; moisture in the soil was sufficient; and the seed germinated freely. After this the season was unusually dry and irrigation was resorted to on a large scale. November and December were entirely rainless and were followed by severe frost. The rain in the last week of January was pretty general and greatly benefited the unirrigated crop. February and March were also practically rainless and the crop was gathered without any mishap, though in the western divisions white ants, frost, and dry west winds caused some damage.

In Bengal the rainfall in September was general and plentiful, but it was seriously deficient in October, there being practically no rain in south Bihar and Chota Nagpur. The fall in the subsequent months was markedly deficient in Bihar, and in a lesser degree elsewhere. On the whole the season was unfavourable to the wheat crop.

In the Central Provinces the monsoon rainfall was favourable for the preparation of land. In the southern districts, however, the monsoon ceased extraordinarily early in September and consequently the area sown was contracted, whilst the early growth of the plants was stunted. Prospects were gloomy, but were much improved by some good cold weather showers. In the northern districts the season was throughout favourable owing to the late monsoon rainfall and an exceptionally heavy fall at the end of October. Consequently the area sown showed a substantial increase. The cold weather showers were also exceptionally good and beneficial. In these districts the crop was the best reaped during the past ten years, and, but for some damage by frost and insects, would have been a heavy bumper crop.

In Berar the area was contracted owing to the repeated failure of the late rains during the past few years which made cultivators fear to reserve much land for winter sowings. The rainfall during the year was up to the average, and the exceptionally good showers in November and December greatly benefited the growth of the plants, and raised the yield above that of the previous year, although a contracted area was sown.

In Bombay the season was very good in Gujarat; in the Deccan and Karnátak the crop was somewhat damaged by heavy rain in December, and in Sind it suffered from a poor inundation. For the province generally the season was above the average. The monsoon was late, beginning in the second week of July. Some of the early crops were lost and had to be resown. August rain was sufficient and September rain was very good. The October rain was below the average, but in November heavy widespread rain was of great benefit to the young crop. An unusually heavy fall in December injured the crop in places.

WHEAT

In Hyderabad area was contracted, but the outturn was satisfactory.

In Rajputana there was a substantial increase in both area and yield. In Central India the area did not reach the figures of last year which showed a large increase over those of the year previous and the quinquennial average, but the yield was as good or better.

In Mysore both area and yield were substantially larger than those of the preceding year and the average.

1903-04

In the Panjab conditions were distinctly favourable from the beginning to the end of the season. The crop was also unquestionably a bumper one and the straw was as good as the grain. A serious misfortune which calls for special notice is the particularly virulent outbreak of plague which visited the new Jhelum colony. In consequence of this a large proportion of the new settlers fled to their old homes, abandoning a large area of splendid wheat which was left to rot on the ground.

In the North-West Frontier Province copious and well distributed monsoon rains facilitated the preparation of an unusually large area for wheat sowings, and the heavy rain in December and January enabled the cultivators to make extensive late sowings on unirrigated lands. February was fair and favourable for growth. Heavy and opportune rain was received in all districts throughout March and an unusually large proportion of an unusually large area was brought to maturity. The yield all round was said to be the best within living memory.

In the United Provinces owing to the heavy and continuous rain at the close of the monsoon, which spoiled much of the value of the early tillage, the crop was sown rather late with inferior tillage and excessive moisture in the ground. From sowing time onwards, however, the season was, on the whole, remarkably favourable, the deficiency of the winter rains being largely made up by artificial irrigation. The cloudy weather at the end of February and the beginning of March induced a rapid spread of rust, but it came too late to do serious harm. The quality of the grain was good except in a few localities where the crop suffered from drought or strong winds.

In Bengal the heavy rains in October favoured the retention of moisture by the soil during the wheat-growing season. In November light showers were obtained all over the province, except in Bihar where the bulk of the wheat crop is raised. December was practically rainless, but the crop in Bihar was much benefited by the January rains. In February the rainfall was more general and copious. On the whole, the season was generally favourable.

In the Central Provinces and Berar an extended area was sown with wheat. The crop was, however, affected by the absence of winter rains. The heavy rain which fell at the end of February and the beginning of March and which was in some localities accompanied by severe hailstorms caused further deterioration, especially in the Berar districts. This deficiency in the weather conditions was, however, made up by the increased area sown.

In Bombay the area under wheat increased in most districts owing to favourable rains at sowing time in the Presidency proper and to a plentiful water-supply in Sind. The season was good in Sind and Gujarat. In the Deccan the crop suffered from deficiency of moisture, and from locusts and rats in places. In the Karnátak late rains were excessive and much damage was done by rust. For the province generally the season was fairly good.

In Hyderabad an increased area was sown, and a very good crop harvested, although damage was done by heavy rains in places.

In Rajputana both area and yield showed a very marked increase over the preceding year.

In Central India both area and yield increased substantially over the figures of the preceding year and the average.

In Mysore also both area and yield was substantially larger than those of the preceding year and the average.

1904-05

In the Panjab conditions of the rainfall were ideal except in a few central districts, but the crop received a serious check everywhere from the abnormally severe frosts which were experienced in the last week of January and the first week of February. Palpable harm was done to all early sown and advanced crops. Fortunately, however, favourable rainfall and sunshine soon changed the situation; and, on the whole, the effect of the frost was to retard harvesting operations by two or three weeks and to convert what would have been a bumper crop into one a little above the normal.

In the North-West Frontier Province conditions were similar to those in the Panjab.

In the United Provinces conditions were everywhere most promising till the end of December, but the rest of the season proved disastrous. Owing to frosts of unprecedented severity and rust brought on by damp and cloudy weather enormous damage was done especially in the southern and central districts.

In Bengal the rainfall of October was very favourable throughout the wheat districts. Drought prevailed since then until January when rainfall was again general. But in February and March frost, rain, and hail did considerable damage in Bihar where the bulk of the crop is grown. On the whole the season was unfavourable.

In the Central Provinces and Berar rainfall was favourable at sowing time and an extended area was placed under the crop. The crop was affected by the frost of January and February in the northern districts, but fortunately the damage was serious only in Saugor

Cloudy weather accompanied by rain storms in the end of February and beginning of March caused the appearance of rust in several districts, but the disease was severe in Jubbulpur only. The southern districts, however, fared much better than the northern, while the winter rains were less favourable in Berar than in the other districts.

In Bombay the area was restricted in most places owing generally to insufficient sowing rains in the Presidency proper and to low inundation in Sind. The crop suffered through deficiency of moisture everywhere except in Kaira, Cutch, and Dharwar. The severe cold and frost of January-February further injured the crop, particularly in Sind, Gujarat, and parts of the Deccan.

In Hyderabad the area sown was very nearly equal to that of the preceding year, but owing to deficient winter rains the yield was much less.

In Rajputana the area was a little below that of the preceding year, but the yield was proportionately much worse.

In Central India the yield showed a decrease, though the area sown was substantially larger than in the preceding year.

In Mysore there was a slight decrease in the area sown, but the yield was considerably below that of the preceding year.

1905-06

In the Panjab conditions were most favourable for both early and late sowings, but deteriorated under drought which lasted from the beginning of January till the middle of February. After that time, when heavy and general rain set in, the season was excellent. The grain was of admirable quality everywhere, and the harvest was a bumper one.

In the North-West Frontier Province the season was on the whole a very favourable one; and the crop was much above the average, though in places it suffered from hailstorms and high winds.

In the United Provinces a restricted area was sown owing to drought at sowing time. The deficiency of rain was, however, largely made up by irrigation, which began much earlier than usual. The irrigated crop, which this year comprised nearly two-thirds of the total area under wheat, did exceptionally well; the yield was heavy and the quality of the grain exceptionally good. The unirrigated crop suffered much from continued drought: the rain of February was expected to improve it; but the outturn was reduced by strong winds at the time when the grain was ripening.

In Bengal, in spite of the want of rain at the sowing season in October, the crop promised fairly well at first; but in February continuous rain accompanied by cloudy weather and hailstorms caused serious damage.

In Eastern Bengal the season on the whole was not a favourable one, owing to ill-distributed rainfall.

In the Central Provinces, although the usual October showers were wanting, heavy rain at the end of September enabled cultivators to sow at the usual time with fair success in all but two or three districts. In Berar, where the monsoon was deficient, the sowing season was less favourable. The crop suffered from drought and also from an absence of dew; but it was greatly benefited by the rain received at the end of January. The harvest was on the whole not much below normal.

In Bombay, a very restricted area was sown owing to deficiency in the late rains. The dry crop fared tolerably well in North Gujarat; but elsewhere it suffered through insufficiency of moisture and also in places from cloudy weather. The irrigated crop was generally fair in the Deccan; but elsewhere it suffered through the deficiency of water-supply.

In Sind an extensive area was sown owing to timely and plentiful inundation. The crop suffered slightly from locusts and in places from frosts; but the season on the whole was favourable.

In Hyderabad the area sown was much below that of the preceding year owing to want of late rains; and the crop was almost a complete failure in the important district of Aurangabad.

In Rajputana and Central India both area and yield showed a marked decrease as compared with the preceding year.

In Mysore also the area and the yield were much below those of the preceding year and average, owing to deficient rainfall.

1906-07

In the Panjab the early promise of the crop was excellent, but this was marred by various calamities. Rain was excessive in a number of districts during March and April. This in conjunction with prolonged spells of cloudy weather developed rust in several places. Hailstorms and hot winds also did more or less damage in certain localities.

In the North-West Frontier Province the season on the whole was a very favourable one, although hailstorms and locusts did some slight damage in certain districts.

In the United Provinces the crop was exceedingly promising till February; but the rest of the season was very unfavourable. The months of February and March were unusually wet. Continued cloudy weather and rain favoured the spread of rust and fungoid diseases, which damaged the crop very seriously. Hailstorms were also frequent during February and March, but the loss from this cause was confined to a few localities.

In Bengal the season on the whole was an unfavourable one, the crop having suffered through cloudy weather, rain, and hail in February and March.

WHEAT

In Eastern Bengal also the season on the whole was unfavourable.

In the Central Provinces and Berar, the season on the whole was a favourable one. Cloudy weather accompanied by rain and hail during February and towards the end of March caused rust in parts of the northern districts, but damage to crop was neither serious nor extensive.

In Bombay the crop fared well at first in Gujarat, but cloudy weather and rain in February induced rust in places. In Deccan the crop suffered through want of moisture in the soil and deficient water-supply in the eastern tracts. In some other parts of the Deccan cloudy weather and rain induced rust. Adverse winds and insufficiency of dew were also reported from places. In the Karnátak the December rains proved injurious to the crop.

In Sind inundation was favourable at sowing time; but the crop later on suffered in places from rain and hail.

In Hyderabad the crop was reported to be good.

In Rajputana both area and yield showed an increase as compared with the preceding year.

In Central India a very extensive area was sown, and the yield was much above the average.

In Mysore also the area and the yield were above the average.

COTTON

1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the United Provinces.

In the Central Provinces excessive and injurious rain fell in September and October.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnátak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

1893-94

In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the United Provinces continued heavy rain from July to October, and strong winds, retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency proper and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious, but on the whole very beneficial.

In the United Provinces, on the other hand, the area was slightly below the average and heavy rain and stormy winds in October and November reduced the yield.

In Bengal, owing to excessive rain, the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

In the Central Provinces and Berar the rains were heavy and injured the standing crop.

In Bombay the rain was excessive in Gujarat and deficient in the Deccan; clouds in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with the early and late crops due, in the northern and Deccan districts, to the fact that lands usually sown with cotton were placed under other crops, and in the southern districts mainly to the want of timely rains.

1895-96

In the Panjab the season commenced well, but after July the rainfall was generally insufficient and untimely, with the result that on irrigated land the crop was good, but poor on land dependent entirely on rain.

In the United Provinces the rains were generally favourable to the crop, weeding operations were properly carried out, and an excellent crop was expected; but the rainfall at the end of the season proved very scanty, and insufficient moisture arrested the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing time, but the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the monsoon favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of seasonable rain for sowing, and a long break in the rains in August, restricted sowings of early cotton. The area sown with the late crop was also below the average owing to deficiency of seasonable rain. The season was, however, on the whole better than in the preceding year. In Sind there was a deficiency of water-supply.

In Madras the area sown was a little larger than the average owing to the favourable character of the season, but the yield was estimated to be below the average.

1896-97

In the Panjab no rain having fallen in April, sowings were greatly contracted on unirrigated land, though extensive sowings were made on irrigated areas. But the monsoon brought little rain and it ceased early; the harvest therefore depended on irrigation which was inadequate and the crop was bad.

In the United Provinces there was sufficient rain and the crop was in good condition until the middle of August. Thereafter drought, with dry west winds, injured the crop especially on unirrigated lands.

In Bengal the season was unfavourable, and the crop suffered from deficient rain and the early withdrawal of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and local. October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In Hyderabad a restricted area was sown, and the crop was poor.

1897-98

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the United Provinces of Agra and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season, though a little late, was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing *Northern* and *Western* varieties, but the lateness of the monsoon contracted the area in places where *Tinnevelly* and *Salem* cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In Hyderabad the area sown was large, but owing to an unfavourable season, the yield was bad.

1898-99

In the Panjab the rainfall at sowing time was scanty, in August it was irregular and deficient, but favourable showers in September did much to develop and mature the crop. Irrigation was also late and insufficient, and sowings on irrigated lands were in consequence greatly restricted.

In the United Provinces the season was on the whole favourable, although there was excessive rain in parts. The dry weather in October benefited the crop.

In Bengal the season was unfavourable owing to the uneven character of the monsoon.

In the Central Provinces excessive rain at sowing time interrupted weeding operations in the northern districts, and in places insufficient rain caused defective germination. Drought followed in the autumn.

COTTON

In Berar dry weather in October and the failure of the late rains had a bad effect, but the yield was good.

In Bombay the area under early cotton was increased in some places as a result of favourable rains and the rotation of crops, but that increase was almost counterbalanced by decreases in other places. The cultivation of cotton, especially in the Deccan and Karnátak, had not yet fully recovered from the check it received in 1897-98 by an unusually large sowing of food crops after the famine of 1896-97; and the late crop covered an area smaller than the average owing to unfavourable rains and to the substitution of other crops in place of cotton. The season was good until December, and though the crop afterwards suffered from cold and cloudy weather in Gujarat, adverse winds in the Karnátak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In Hyderabad the monsoon was late at the commencement of the season, and though prospects were improved by rain in August and September, the yield was bad.

In Rajputana the season was on the whole unfavourable owing to insufficient rain; in Central India the crop did well.

1899-1900

In the Panjab the prospects of the crop were generally hopeful in the beginning of the season, and sufficient rain at sowing time and a good supply of canal water induced cultivators to sow an extensive area, a large proportion being on land irrigated by canals and wells. But with the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the United Provinces excessive rain in June and July interfered with sowings and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was almost entirely lost.

In Bengal, in the early part of the season, the rainfall was irregularly distributed, and later it was on the whole inadequate and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain, but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places, and where it survived gave a very poor yield. In Sind the water-supply was deficient and the yield poor.

In Madras the season was, on the whole, unfavourable and the yield very poor.

In Hyderabad the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the United Provinces the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

In Bengal the rain in July was, on the whole, well distributed and fairly continuous. In August it was deficient and irregularly distributed. Much more copious and general rain fell in September, but in October it was deficient. The season was, on the whole, unfavourable to early cotton, though fairly favourable to the late cotton except at sowing time.

In the Central Provinces, in consequence of the relative cheapness of cotton seed, favourable conditions at sowing time, and good prices, a very extensive area was sown. The distribution of the rainfall left something to be desired. In some parts the plants were swamped by the heavy and continuous rain of August and September, especially in the richer soils and in low-lying positions. Heavy rain in September also injured the flowers, and the absence of rain in October affected the crop in poor soils and high-lying fields, and owing to insufficient moisture the bolls withered before maturity.

In Berar the area under cotton was the largest hitherto known. The monsoon rainfall was better than for many years past. The early rains were somewhat deferred and sowings were later than usual, but the fall in June and July was normal; August was very wet and in September also the fall was excessive; but the rains closed abruptly at the end of that month. The cotton crop on poor soils suffered from lack of moisture, but on all rich black soils and in low-lying lands there was a heavy crop.

COTTON

In Bombay early cotton in the Deccan and late cotton elsewhere, mainly in Gujarat, covered a restricted area, early rains being deficient and not allowing full sowings. The devotion of part of the usual cotton area to food-grains consequent on the scarcity of the preceding year also accounts for some of the decrease. The crop promised well at first, but afterwards it suffered from the deficiency of the late rains.

In Madras the north-east monsoon failed in some places and the area sown was also restricted by the preference given to the cultivation of food-grains. The crop was generally fair except in the Deccan districts, where *Northerns* and *Westerns* were affected by disease and want of rain.

In Hyderabad with good rain at the sowing season for early cotton a large area was brought under cultivation, but late cotton did not receive sufficient rain; and in the Aurangabad division, which has the largest cotton area in the territory, the sudden cessation of the winter rains kept the crop back.

In Central India both area and yield were much in excess of the average.

In Burma heavy rains greatly injured the crop.

1901-02

In the Panjab the rainfall of May was beneficial to the crop, and the injurious effect of the long break in the rains in September and October was chiefly felt on unirrigated land. Some damage was also done by locusts, grasshoppers, and rats.

In the United Provinces a very large area was placed under cotton, although the rains were late, owing to the stimulus given by the high prices and the plentiful crop of the preceding year.

In Bengal the season was on the whole unfavourable by reason of deficient rain for the cotton crop, both early and late.

In the Central Provinces the germination of the crop, which was not sown under favourable conditions, was unequal, and a long break of the rains in the first-half of July necessitated resowings to some extent in most of the important cotton-growing districts. Excessive rain in August did some injury which was not altogether made good by a timely break in the second-half of September. Owing to the absence of rain after September, and the ravages of insects in October, the prospects of the crop materially deteriorated.

In Berar the monsoon rainfall was unusually heavy and continuous. It was not until the beginning of September that a break of any duration occurred and the crop then was suffering from excessive moisture; but three weeks of fine weather followed by timely showers brightened prospects considerably; and the clear cold weather of November and December brought the crop rapidly to maturity. Rats, however, caused much injury.

In Bombay there was some increase in the area sown with early and late cotton in the British districts of Gujarat and the Deccan, and in Baroda and some other Gujarat States, owing to favourable early rains, but not enough to compensate for the large decline in Káthiáwár and Cutch and in the Karnátak districts, which resulted from the deficiency of rain at the sowing season. In Sind there was a small increase due to a better water-supply. In Gujarat the season began well, but the crop made little progress owing to the failure of the late rains. Afterwards locusts and rats materially injured the surviving crops.

In Madras the condition and prospects of the crop were, on the whole, fair, and unusually late rain in the Deccan districts considerably improved prospects there. On the other hand, late and subsequently very heavy rain retarded sowings in the south; both the area and the yield were, on the whole, below the average.

In Hyderabad the rains were, on the whole, favourable.

In Central India and Rajputana the crop was good.

In Burma the season was not favourable owing to want of rain.

1902-03

In the Panjab, owing to deficient rainfall in February and March, unirrigated cotton sowings contracted. The deficiency of rainfall, however, stimulated cultivation with the aid of irrigation. The rainfall of June was favourable for late sowings on unirrigated lands. The break in the rains towards the close of July and August marred the prospects a good deal and the flowers did not form well. September rains, however, improved the crop very much, but the flowers that formed then were late and the cold of the last few weeks checked further development.

In the North-West Frontier Province timely rainfall from March to June stimulated sowings and proved exceedingly beneficial to the young plants, and the seasonable rains of July, August, and September enabled further sowings to be made. The crop was fairly average.

In the United Provinces owing to a succession of seasons of light rainfall, which generally tends to the success of this crop, the cultivation of cotton extended. Prospects, however, deteriorated afterwards. In places the flowers fell off without bearing bolls, while in others the full development of the bolls was checked. Damage was also reported in places from high winds and insects. The irrigated early crop escaped serious injury, but the unirrigated late crop suffered severely.

In Bengal owing to insufficient and ill-distributed rainfall the season was anything but favourable to the early crop. For the late crop also the season was not favourable owing to deficient rain.

COTTON

In the Central Provinces, sowings, though late, were successful over an exceptionally large area. Germination was good, the weather was favourable for weeding, and the plants thrived. But later on the season was not so favourable. In the northern districts heavy rain in October and November did considerable damage just when the plants were in flower, and in the southern districts, the plants suffered in their later stages of growth from drought accompanied by cloudy weather, which caused the withering of immature bolls. Damage was also caused by insects. The season did not thus fulfil its early promise of being an exceptionally favourable one, but it was still about the average.

In Berar the exceptionally good crops of the preceding two seasons and the favourable market prices influenced the cultivators to sow cotton extensively. The monsoon rains commenced unusually late and there was an extensive break in August which caused some anxiety; subsequently the rainfall was light but timely, and prospects were brilliant. Unfortunately heavy rain in November caused considerable damage to the ripe cotton, and in some districts knocked ripening bolls off the plants. But, although the late rains damaged the crop that had reached maturity, a heavier yield than usual was gathered from the later pickings.

In Bombay the area contracted mainly in the British districts of Gujarat and the Deccan, where the opening rains came much later than usual. In the Gujarat States, however, there was a considerable extension in area which made up part of the deficit elsewhere. Though the crop suffered in places from excessive rain and cold at the time of the opening of the bolls, the season was distinctly favourable.

In Madras an extended area was sown owing to good and timely rainfall; and the condition of the crop was reported to be generally good.

In Hyderabad the crop was unfavourably affected in the Mahratwara districts, where most of the cotton is grown, by cloudy weather and untimely rain that fell when the cotton capsules were growing, and in Bidar the capsules fell off in parts.

In Rajputana and Central India the area exceeded the average and the crop was excellent.

In Burma also the crop was very good.

1903-04

In the Panjab the late spring rains were favourable for sowing throughout the central and north Panjab, with the result that the increase in the area sown in these parts of the province more than compensated for the deficiency in the Delhi Division due to the late arrival of the monsoon rains. The outturn was also considerably below the average in the dry area of the Delhi Division. Taking the rest of the province as a whole, the late rains caused late flowering, and excessive rains in some districts was also prejudicial to the yield. A few districts also reported high winds at flowering time. But conditions were fairly satisfactory in the most important districts of the province.

In the North-West Frontier Province the heavy rainfall of March afforded sufficient moisture for cotton sowings. The rainfall of May helped on the crop and that of July improved prospects.

In the United Provinces a relatively small area was sown owing to the late arrival of the monsoon. The rainfall was favourable up to the end of September, when the crop, though backward, was doing fairly well. The excessive rain in October and the strong winds that prevailed changed the whole prospect. In a few western districts, which escaped the full severity of the storm, the crop was comparatively good; elsewhere it was little more than half the normal.

In Bengal the defective rainfall in the early part of the season was, on the whole, favourable to the early cotton crop, except where the rainfall was altogether insufficient in May. In the flowering season, that is, in September and October, the rainfall was generally in excess, and consequently the production was low in most districts. For the late crop also the season was not altogether favourable as the rainfall was generally insufficient.

In the Central Provinces the crop was put down under favourable conditions. Germination was good and very little resowing was necessary. The heavy and continuous rainfall in August and September, however, retarded weeding operations and checked the growth of the plants, while the continuance of rainy weather in October not only prevented this injury being repaired, but also increased the damage from excessive moisture in some of the most important cotton-growing districts. Some damage was also caused by grasshoppers in parts of Nimar and Chhindwara. The prospects of the crop therefore materially deteriorated.

In Berar favourable seasons and good prices greatly encouraged the cultivation of cotton and a record area was sown. But the damage caused by heavy rain was reported to be greater here than in the Central Provinces.

In Bombay (including Sind) favourable rains at sowing time extended the area sown almost everywhere. The crop progressed well at first, but later on it suffered from deficiency of moisture in North Gujarat and through its excess in the south. Injury was also caused by locusts in Gujarat and by disease in parts of the Karnátak. On the whole, however, the crop fared well everywhere.

In Madras there was an expansion of the area sown owing to good and timely rainfall. The condition of the crop was reported to be generally good.

In Hyderabad the area sown showed an increase over the preceding record year; but the crop was affected by heavy rain, especially in the western districts. In the southern districts where a large portion of the crop is sown late the crop was better.

In Ajmer-Merwara rains ceased early after the middle of September, and the crop was injured by locusts and cold winds.

In Rajputana, owing to the lateness of the sowing rains, a restricted area was sown. The crop was also damaged by locusts and high winds in places.

In Central India an extended area was sown, and the yield also was well above the preceding year, though the crop suffered considerably from rain in places.

In Burma the early rains generally were scanty, and the later rains somewhat in excess. But fortunately the destruction due to the August drought and the heavy rainfall of October extended to a limited area only and did not appreciably affect the total outturn.

In Assam the crop suffered seriously from drought in March and April. Since then the weather proved generally favourable.

1904-05

In the Panjab there was an extension of cultivation, especially in the Delhi Division, owing to sufficient rainfall at sowing time. The unirrigated crop suffered severely from the failure of the monsoon in the central Panjab. On the whole, however, the yield was fully up to the average, and above the average in many districts.

In the North-West Frontier Province also the heavy rains of March enabled the cultivators to make extensive sowings in April and May. In the succeeding months, from June to October, the rainfall was well distributed and sufficient in all the districts, except Dera Ismail Khan, where it was deficient and affected the crop to a great extent.

In the United Provinces the very large decrease, which took place in 1903-04 in the cultivation of cotton owing to the late arrival of the monsoon, was nearly made up in 1904-05 owing to favourable and sufficient sowing rains in most places. The crop suffered from excessive rain in the Allahabad Division, but in the other cotton-growing tracts conditions were satisfactory.

In Bengal the season was unfavourable for the early cotton crop, which suffered from heavy rain in some districts and from want of moisture in others. For the late crop also the season, on the whole, was not favourable, the rainfall being ill-distributed, and insufficient in many places.

In the Central Provinces and Berar the sowing season though somewhat late was on the whole favourable and an extended area was sown. Germination was good and the light rainfall during the early monsoon facilitated weeding. Owing to long breaks in July and the latter part of August, the plants on light soil were stunted, but good rain fell before serious damage had occurred and the plants affected by drought recovered to a great extent. Some damage was done to the crop in places by rain in October when flowers were opening and also by locusts and other insects, the damage being reported to be greater in Berar than in the other districts.

In Bombay there was a decrease in the area sown in the Deccan, Karnátak, Káthiáwár, and Cutch due to the shortness of early sowing rains. On the other hand, in the British districts of Gujarat, and also in Sind and Baroda, the cultivation was considerably extended, partly under the stimulus of the high prices of the preceding year and partly in the hope that cotton would be more likely to succeed in a season of deficient rainfall than other crops. The crop, however, suffered everywhere in the Presidency proper through deficiency of moisture, and in places from excessive cold and disease. In Sind the crop was fair.

In Madras an extended area was placed under the crop owing partly to timely rainfall and partly to the good prices obtained in the preceding year. The crop, however, suffered seriously from want of rain.

In Hyderabad owing to favourable conditions of the season both the area and the yield slightly exceeded those of the preceding year.

In Rajputana, Ajmer-Merwara, and Central India an extended area was sown and a heavy yield obtained.

In Burma the rains began well and continued favourable till towards the end of season, in October, when they were unusually heavy and did a good deal of damage to the crop.

In Assam the season was generally favourable and a better yield than that of the preceding year was obtained.

1905-06

In the Panjab, although conditions were favourable at sowing time, the season was disastrous to the cotton crop. Its destruction was ascribed to green fly in July and August, to severe drought in August, and finally to the ravages of boll-worm in September and October.

In the North-West Frontier Province rainfall was generally sufficient at sowing time, except in Dera Ismail Khan where failure of timely rains interfered with sowing operations. The crop was damaged by boll-worm in places.

In the United Provinces conditions at sowing time were favourable, as enough rain was received in the first-half of July. The rainfall in August, however, was seriously deficient. Light rain in places during September benefited the crop; but October was practically rainless. The irrigated crop did well; but the dry crop was an almost total failure.

In Bengal, for the early crop, weather conditions were generally favourable in the early part of the season; but some damage was caused by excessive rain in September. The late crop also was damaged by excessive rain and floods.

In Eastern Bengal and Assam also the crop was injured by excessive rain.

COTTON

In the Central Provinces and Berar the season was at first favourable though somewhat late; but prospects deteriorated owing to bad distribution of the rainfall and the absence of dew. In the tracts most affected the plants withered; and over a large area in Berar the usual three pickings were not obtained.

In Bombay the favourable character of the early sowing rains and the short rainfall in the season suitable for other crops led to an extended cotton cultivation. The crop in Gujarat and Khandesh made an excellent start, but suffered from absence of rain at the end of the season. Elsewhere in the Deccan and the Karnátak rain was very scanty and the crop withered in many places. In Sind a favourable inundation induced a great expansion of cultivation; but the crop was seriously damaged by boll-worm.

In Madras conditions were not favourable at sowing time; and the crop suffered from want of rain.

In Hyderabad the crop not only suffered from unfavourable season owing to the failure of late rains, but also from rain in the third week of January.

In Ajmer-Merwara unfavourable winds blighted the crop; and in many places, although the plants reached maturity, they produced little or no cotton.

In Rajputana a very restricted area was sown and the crop was almost a complete failure in many places.

In Central India an extended area was placed under the crop; but the yield obtained was much below average.

In Burma the rainfall was generally favourable; and the condition of the crop was on the whole good, though excessive rain did some damage to the crop.

1906-07

In the Panjab a reduced area was sown, which was the direct result of the complete destruction of the crop of the preceding season by boll-worm in most of the central and south-western districts, and the generally adverse season of 1905. Early in this season a serious disaster was threatened by boll-worm in several districts and the first buds and pickings were lost. But the situation improved steadily and rapidly since the September rain. Boll-worm diminished steadily as the season advanced, and pickings continued into January.

In the North-West Frontier Province rainfall at sowing time was timely and favourable, and an extensive area was placed under the crop. The crop was reported to be good.

In the United Provinces the season was very favourable and the yield was the best for several years past.

In Bengal the season was favourable in the early cotton districts; but in some of the late cotton districts the crop suffered considerably from excessive rain and floods.

In Eastern Bengal and Assam weather conditions were unfavourable in the Chittagong Hill Tracts, but elsewhere favourable.

In the Central Provinces and Berar the season was generally favourable in the northern districts; but elsewhere the crop suffered from heavy and continuous rain and consequent

In Bombay the early rains were favourable for sowing. The crop fared well in Gujarat and Karnátak; but in the Deccan it suffered through absence of rain at the flowering period.

In Sind a reduced area was sown owing to the late opening of the canals and the discouraging result of the preceding year's crop. Some damage by insects was reported from places, but the crop was reported to be generally fair.

In Madras rainfall was seasonable at sowing time, and the crop was reported to be good.

In Hyderabad the season on the whole was favourable, though the crop slightly suffered in places through rain in December and January.

In Ajmer-Merwara rainfall was sufficient, and the crop was reported to be good.

In Rajputana the crop was reported to be good everywhere.

In Central India the crop was very good, though it suffered in places through excessive rain.

In Burma rain was generally deficient at the commencement of the season and sowings were consequently late; but the season on the whole was fairly favourable.

In Mysore the condition of the crop was reported to be from fair to good.

OILSEEDS

Linseed, Rape, and Mustard

1892-93

In the Panjab where the oilseeds mature late, the winter rains were followed by a large increase in the area sown.

In the United Provinces the expectations of a good crop were not realised owing to frost and wet weather in January and February.

In Bengal the rain in September and October was in defect, which was partially remedied by copious rain about the end of October and in November. The winter rains from January to March were excessive and continuous, and injured the crop.

In the Central Provinces timely rain in October led to a large expansion in the area under linseed, and although injury was caused by frost, the yield was good.

In Berar heavy rain in October retarded sowings of linseed, and hail in January blighted the crop.

In Bombay the crop suffered from excess of moisture after heavy rain in September and October. But on the whole both linseed and rapeseed did well.

In Assam the season was favourable.

1893-94

In the Panjab the season, first favourable, changed for the worse when heavy rain in February and March injured the crop and generated insect pests. The crop was, however, on the whole fair.

In the United Provinces the area sown with rape and linseed was seriously reduced by excessive rainfall, and the crop suffered from rust and insects following on continued wet in the spring.

In Bengal also sowings were impeded by excessive rain. The crop was afterwards seriously affected by the failure of the cold weather rains, and a wet March injured rape and mustard in many districts.

In the Central Provinces the crop promised well in the earlier months, but heavy rain, shortly after sowing, damaged the seedlings. Cloudy weather continued, rust set in, and much injury was done, but nevertheless the yield was much good.

In Berar the sowing of linseed was late owing to heavy rain in October and November. The crop was much affected by untimely rain and rust.

In Bombay seasonable rain stimulated sowings of linseed, both area and yield being good. In Sind rapeseed suffered from insufficient water-supply, blight, and frost.

In Hyderabad excessive rain caused a contraction in places of the area sown, while in others timely rainfall promoted sowings.

In Assam the season was favourable for mustard.

1894-95

In the Panjab the area sown was contracted owing to deficient rainfall at the time of sowing; and excessive rain injured the crop in the submontane districts.

In the United Provinces the linseed and rapeseed crops were injured by excessive moisture and by fungoid disease.

In Bengal sowings were somewhat restricted owing to the prolonged monsoon rain, and the crop was injured by the absence of rain from November until the middle of January.

In the Central Provinces untimely rain and cloudy weather throughout the winter caused damage to the crop. Insects attacked it, rust set in, and the crop was practically ruined.

In Berar the unusual prevalence of cloudy weather, and afterwards storms and winds, deteriorated the linseed crop. Rust set in, and the yield was poor.

In Bombay excessive moisture affected the area sown with linseed, and blight injured the crop. In Sind an extended area was sown with rapeseed owing to favourable floods; but the yield was not proportionate to the increase in the area.

In Hyderabad the winter rains injured the crop.

The area under mustard in Assam was small and the yield inferior owing to the unfavourable character of the season.

1895-96

The season generally, in the provinces in which linseed, rapeseed, and mustard are largely grown, was marked by scanty monsoon rains, which ceased much earlier than usual, and by an almost entire failure of the winter rains. The conditions, which were very unfavourable for wheat, were less so for the oilseeds in Bengal, Bombay, Berar, and Hyderabad, but were quite bad in the Panjab, Sind, the United Provinces and the Central Provinces.

The yield of linseed was much below the average, though larger than that of 1894-95, when the harvest was injuriously affected by prolonged wet. The area sown was restricted in Northern India by the dryness of the soil; but this dryness led to an expansion in the sowing of linseed in Bombay and Berar, much land considered too dry for wheat having been placed under linseed.

The area under rapeseed, on the other hand, was more or less contracted everywhere except in Hyderabad, and the contraction was very material in the Panjab, the United Provinces, Bombay, and Sind. The harvest, however, was good on the reduced area in the United Provinces, and in Bengal it was not much below the average; so that although the yield was very poor in the Panjab, Sind, and Bombay, the general result was a good crop.

In Assam the season was somewhat more favourable than in 1894-95 in the lower districts, but in Upper Assam it suffered much from want of rain.

1896-97

The monsoon suddenly withdrew in the middle of August, and the drought which followed prevented extensive sowings. In northern India the winter rains were timely and sufficient and of great benefit, but they, like the monsoon rains, failed in Central and Western India where the crops suffered severely.

OILSEEDS

The area sown with linseed was greatly contracted in the United Provinces, the Central Provinces, Bombay, and Berar owing to want of moisture in the soil at sowing time. The yield was also bad especially in the Central Provinces and Berar, while in Bombay the crop almost entirely failed. In Bengal and the United Provinces the crop was better, having been greatly benefited by the winter rains.

The area under rape and mustard was larger than in 1895-96 in the Panjab, Bombay, and Sind, but was somewhat restricted in Bengal and the United Provinces. The harvest was generally fair. The short rainfall in Assam was unfavourable for sowing mustard and the yield was affected by the absence of rain during the period of growth.

1897-98

Conditions in the Panjab, the United Provinces, and Bengal were favourable at sowing, and although the area sown was restricted, except in the Panjab where the acreage under rapeseed was increased, the yield was good.

The conditions in Central and Western India were generally not favourable and the area sown was greatly contracted, and the yield deficient in proportion. The rapeseed crop, however, did better in Bombay and Sind.

The mustard crop in Bengal and Assam was reduced in consequence of retarded sowings and deficient winter rains.

1898-99

In the Panjab the season was very unfavourable for rapeseed, insufficient rain at sowing time and drought when the crop was maturing doing great damage.

In the United Provinces excessive moisture at sowing time, and the substitution of food-grains for other crops, led to a contraction in the area under linseed and rapeseed. The winter rain, however, was seasonable, and though rapeseed was injured by frost in places, both crops on the whole did fairly well.

In Bengal the conditions of the season were generally favourable, the moisture in the soil from the autumn rain, and the silt in many places from the early subsidence of the floods in September, being beneficial to the crop.

In Assam the sowing of mustard was restricted owing to the late subsidence of the floods, and the yield was very small.

In the Central Provinces the young plants on the lighter soils and on slopes withered in the drought and heat of November and December; and injury was caused by frost and cloudy weather on low-lying lands in some of the northern districts.

In Berar the monsoon was favourable and sowings were conducted under seasonable conditions; but the crop suffered from the failure of the late rains.

In Bombay sowings of linseed were restricted, owing partly to the cultivation of other crops and partly to the unfavourable character of the season. In Khandesh the rain at sowing time was seasonable and sufficient, and in Dharwar it was excessive; but elsewhere in the Deccan and the Karnátak the late rains were insufficient and the crop suffered. It was also injured in places by wind and insects. Sowings of rapeseed were restricted in Native Gujarat (except in Baroda) in consequence of insufficient rain, but in the British districts sufficient moisture in the soil and favourable winter rains stimulated larger sowings.

In Sind, as the result of a low inundation, there was a very great contraction in the area under rapeseed. The crop was also injured by frost in some places.

1899-1900

In the Panjab the early cessation of the monsoon, the dry autumn months, and the lateness and deficiency of the winter rains, had the natural result of diminished sowings and restricted yield of rapeseed. In some places no yield at all was obtained, the crop having been cut when green and eaten as a vegetable by the people or given as fodder to the cattle.

In the United Provinces excessive rain in June and July was followed by a material deficiency in August and September, and the three following months were exceptionally dry; fortunately rain fell about the middle of January and did much good to both linseed and rapeseed.

In Bengal the season was not favourable to the cultivation of oilseeds. The rainfall in the autumn months was in defect, and the want of rain was felt in many districts at the time of sowing, while an excess in others interfered with the proper germination of the seeds. The usefulness of the rain which fell in January was qualified by the injury done in some places by hail.

In Assam the late subsidence of the floods, combined with the late cessation of the rains, interfered with timely sowings, but the yield was good owing to favourable weather after the crop was sown.

In the Central Provinces, the want of moisture in the soil at sowing time, and the absence of the winter rains, told upon linseed seriously. Germination was exceedingly defective, and the plants which came up yielded but little seed.

In Berar also linseed was a disastrous failure. Even the best black soil failed to retain enough moisture to nourish the crop, and the plants withered before reaching maturity.

In Bombay linseed was a complete failure in Gujarat, no sowings being possible in consequence of the failure of the rains. In the Deccan and other parts of the Presidency, the conditions were hardly better. The rapeseed crop was also practically a complete failure, some outturn having been obtained only in Cutch.

In Hyderabad which is subject to climatic conditions resembling those of Berar and Bombay, linseed, rapeseed, and mustard all did very badly.

1900-01

In the Panjab the season was most favourable for rapeseed. The monsoon rains were abundant and the winter rains fell at opportune intervals, both for sowing and maturing. The area under the seed was more than double the average, and the yield very large.

In the United Provinces the moisture in the soil was ample at the sowing season, and consequently the area sown was extended. But the excessive and prolonged continuance of the rain and cloudy weather generated fungoid diseases, and the crop was seriously affected by them in many districts, the yield in the localities affected being hardly more than half the normal crop.

In Bengal the monsoon rains were fitful and irregular, falling in abnormal quantity towards the end of the season, while the winter rain in January and February was also much in excess of the normal. On the whole the season was unfavourable to the oilseed crops, which suffered from an excess of rain in many districts and from comparative drought in others.

In Assam the mustard crop suffered in most districts from the absence of rain during the period of growth.

In the Central Provinces the continuous rain during August and September interfered with the preparation of land, whilst the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloud and rain in January and February induced rust which caused great injury. The unfavourable conditions after January told seriously upon linseed.

In Berar the area sown with linseed was far below the average. After the year of famine during which both food-stocks and credit were exhausted, the general inclination of the cultivators was to obtain as early a crop as possible, and larger areas were devoted to the autumn crops, notably jawar and cotton. The monsoon rainfall was in excess of the average, but the ground had been so thoroughly parched by the failure of the rains of 1899 that the moisture was rapidly absorbed and was inadequate for the successful growth of linseed. No rain fell after sowings had been completed; the rain of January came too late to be of any material benefit and the yield was poor.

In Bombay linseed is mostly grown in the Deccan and Karnátak, and in both tracts the crop suffered so greatly from the absence of moisture owing to scanty rain as to be an almost complete failure. Rapeseed did better in Gujarat, but this crop is of much more importance in Sind where the area sown was in excess of the average and a fair yield was harvested.

In Hyderabad an extensive area, not materially smaller than the average, was placed under linseed, but the conditions of the season were unfavourable, as in Berar.

1901-02

In the Panjab the monsoon rain ceased early and was not as abundant as usual. The winter rains failed entirely, and high winds and severe frosts in February proved detrimental to the crop, which was only saved from destruction in some places by slight showers in March. Owing to the absence of rain in the sowing season, a very small area was sown with oilseeds, while sources of artificial irrigation were devoted chiefly to superior crops. The crop on unirrigated lands gave extremely poor results generally and failed entirely in several localities. On irrigated lands also the crop was below the average.

In the North-West Frontier Province, as in the Panjab, the season was most unfavourable for rapeseed. There was a decline in the area sown owing to the failure of the winter rains and to the short supply of irrigation from canals and hill torrents.

In the United Provinces the autumn rains in the latter half of the season were insufficient in the Meerut division, and in parts of the Agra and Rohilkhand divisions; in the rest of the provinces conditions at seed-time were less unfavourable. The winter rains were scanty, only light rain having fallen towards the close of December and the beginning of January. Linseed is generally sown after an autumn crop, and, as the soil was too dry for sowing without previous irrigation, the area sown with this seed declined largely; but the area and yield of rapeseed were larger than the average.

In Bengal the monsoon was weak, the deficiency being serious in the Bihar and Chota Nagpur divisions. On the whole, the season was unfavourable for oilseeds, especially in Bihar; and there was a decline in the area sown owing to drought in the sowing season.

In Assam the season was favourable for the mustard crop except for heavy rain at the end of November. The area sown was larger than usual, and the yield was almost equal to the average.

In the Central Provinces the absence of moisture in the soil at the sowing season and the failure of the winter rains told seriously upon the linseed crop. Germination was defective and the plants which came up yielded but little seed.

In Berar there was no winter rain, but the season was favourable for sowing, and in most localities the seed germinated freely and prospects were good; but considerable injury was done by rats, and these prospects were not realised.

In Bombay the absence of moisture severely injured the linseed crop, and its ruin was completed by rats, which destroyed nine-tenths of the crop in Khandesh. As regards rapeseed, the

OILSEEDS

conditions in Sind where the crop is mostly grown were fairly good, but in Gujarat the crop was almost a complete failure by reason of drought and the destructive activity of rats.

In Hyderabad the area was slightly smaller than the preceding year, but a little larger than the average. The yield was smaller than the average owing to the unfavourable character of the latter part of the monsoon.

1902-03

In the Panjab the late continuance of the monsoon was favourable for sowings, and an extensive area was sown; but the failure of the winter rains caused wide-spread injury, and though good rain fell from March 10th onwards, this was too late to benefit rapeseed to any considerable extent. Insects also did great harm in places.

In the North-West Frontier Province the season was on the whole favourable for the rapeseed crop. But considerable injury was done to the crop in Hazara and Kohat by heavy rains at harvest time which blackened the stalk and damaged the seed.

In the United Provinces the autumn rains were seasonable and there was sufficient moisture in the ground when the crops were sown. November and December were entirely rainless and were followed by severe frost. The first winter rains in the last week of January generally benefited the crops. After that there was practically no rain. As in the case of wheat the dry season was very favourable to the oilseed crops, though in some districts in the west slight damage was reported from frosts and hot west winds.

In Bengal the monsoon rains were generally plentiful, but terminated abruptly in September. In that month there was good rain in Bihar and Chota Nagpur; in north Bengal the fall was greatly in excess of the normal, while elsewhere it was, on the whole, slightly in defect. October was unusually dry, and the following two months were practically rainless. The drought continued through January in Bihar and east Bengal, while elsewhere there were seasonable showers. General but scanty rain in February slightly benefited the crops. There was, however, very little rain during the next two months, except in a few districts of east Bengal, and on the whole the season was not favourable.

In Assam, the partial loss of the rice crop caused by floods induced people to sow mustard more largely than usual. But for want of rain during the season of growth and other unfavourable causes, the character of the crop was much below the average in many districts. The increased area sown, however, made up for the poor outturn of the crop.

In the Central Provinces the early cessation of the monsoon rainfall contracted sowings; germination was defective for want of moisture, and the crop which came up suffered from the continued drought. In the northern districts, where conditions were not unfavourable at sowing time, some damage was caused by frost and insects.

In Berar the decrease in the area sown was attributed to the repeated failure of the late rains during past years, which induced cultivators to allot more land under monsoon (*kharif*) crops. There were good showers in November and December which improved the outturn.

In Bombay there was a decline in the area sown with linseed in the Deccan and Karnátak and the crop was affected by rust and disease in places owing to excessive rain, and also from want of sufficient moisture. In Gujarat the crop was fairly good. As regards rapeseed, the crop in Gujarat suffered slightly from frost in Baroda; elsewhere it was fair. In Sind there was a decrease in area owing to low inundation; but the condition of the crop was fair.

In Hyderabad there was a temporary withholding of the rains at the commencement of the season, but the conditions afterwards turned very favourable.

1903-04

In the Panjab owing to favourable conditions at sowing time an exceptionally large area was placed under rapeseed. The failure of the winter rains in the south-eastern districts seriously affected the crop. In all other districts conditions were favourable throughout; and the crop on the whole was a bumper one.

In the North-West Frontier Province conditions were unfavourable for sowing, except in Dera Ismail Khan where hill torrent irrigation was unusually favourable and allowed of an exceptionally large area being sown. The general rain at the end of December and in January were most beneficial to the crop. The rains during the subsequent months were ample and well distributed, and the crop came to maturity in an unusually good condition.

In the United Provinces moisture was excessive and in some places the crops were sown late. Linseed is generally sown after an autumn crop, and as moisture was ample a very large area was devoted to its cultivation. The area under rapeseed, however, slightly fell off. November and December were dry; but light rain in the middle of January greatly benefited the crops. In some districts in the eastern half of the province linseed was attacked by an insect pest, but the damage done was not serious.

In Bengal the heavy rainfall of October was on the whole beneficial to winter oilseeds, though it was reported to have injuriously affected the crops in some districts. There were light showers in November, except in Bihar, where owing to want of rain in November and December, the crops suffered. Throughout Bihar and north Bengal, however, light showers were obtained in January, and in February the showers throughout the province were fairly copious. March and April were practically rainless and this facilitated harvest operations. On the whole therefore the season was favourable.

In Assam the season was not altogether favourable to the mustard crop. In the Surma Valley and parts of Lower and Central Assam, cultivation was to some extent impeded by heavy rain and consequent floods at the commencement of the sowing season. Want of rain was subsequently felt over the greater part of the mustard-growing area.

In the Central Provinces and Berar, sowings, though somewhat late owing to the heavy and continuous rainfall during August and September, were successful over increased areas in the important linseed-growing districts. But the absence of the winter rains and the unfavourable conditions during the end of February and the beginning of March told seriously upon the crop. The cloudy weather which preceded the February rain caused the flowers to wither before the seed was set, and also favoured insects which damaged the crop considerably in some districts.

In Bombay a very extensive area was sown with linseed. The increase was due to larger sowings of wheat and jawar with which the oilseed is sown mixed. The crop was fairly good everywhere, though excessive late rains induced disease and rust in places. As regards rapeseed, in Gujarat there was a decrease in area as well as in yield owing to deficient late rains. In Sind the inundation was favourable and the outturn good.

In Hyderabad owing to excessive rain autumn sowings suffered considerably and winter sowings had to be suspended. Nevertheless, the area placed under both linseed and mustard was much larger than in the preceding year. Severe cold and insects, however, injured the crops in places.

1904-05

In the Panjab the season was favourable for sowings except in some of the central and south-western districts where water-supply was deficient. The severe frosts of January and February were, however, disastrous to the crop almost everywhere.

In the North-West Frontier Province, conditions were unfavourable at sowing time except in Hazara and Peshawar where the monsoon and autumn rains were favourable. The crop was, however, at one time threatened with extinction by severe frosts, but it rallied under the influence of copious rains in March followed by bright settled weather in April.

In the United Provinces conditions were very promising till the end of December, but the crop suffered severely from the frosts of January and February, and where it survived the frost, was badly attacked with rust. The rapeseed crop was also damaged by insects.

In Bengal the season was on the whole an unfavourable one for oilseeds. The crop was seriously damaged by hail, frost, and rain chiefly in the districts of Bihar and the Rajshahi Division where the bulk of the crop is grown. The excessive rainfall of March and April also hampered the progress of harvesting operations.

In Assam the season was not unfavourable, but a somewhat restricted area was sown. The crop was fair.

In the Central Provinces and Berar the delicate linseed crop was unable to support the unusual inclemency of the season. In the northern districts frost in early February damaged the crop seriously; later the cloudy weather and rain storms in the end of February and beginning of March carried a step further the destruction already caused in the north and did serious damage in most of the southern districts. Insects and rust appeared in places, and the deficiency of the winter rains and damage caused by hail in Berar resulted in a lighter crop in that part of the province.

In Bombay an extended area was placed under linseed, but the crop suffered from excessive cold and frost in Gujarat and from deficiency of moisture in the Deccan and Karnátak. As regards rapeseed the area contracted owing to low inundation and deficient water-supply, and the crop suffered, particularly in Sind, from excessive cold and frost.

In Hyderabad the area sown with linseed was much larger than in the preceding year, but the crop was somewhat affected by the failure of late rains.

1905-06

In the Panjab the sowing season was favourable. The prolonged drought of January and early February gave the crop a serious check; but it recovered under the heavy and general rain in the latter part of February, except in the east Panjab where a considerable portion of the crop was cut for fodder.

In the North-West Frontier Province the season was on the whole a favourable one.

In the United Provinces moisture was insufficient for sowing, especially in the important linseed growing tracts in Bundelkhand. The absence of early winter rains very injuriously affected both linseed and rapeseed crops. In the eastern and submontane districts, however, where these crops are extensively grown, natural moisture was sufficient, and the yield was fair.

In Bengal the crop suffered to some extent from want of moisture at the time of sowing, and more severely from untimely rain in January and February.

In Eastern Bengal the season was not on the whole favourable. The crops suffered from ill-distributed rainfall and also from insects in places.

In Assam also the season was on the whole unfavourable.

In the Central Provinces and Berar, the sowing season was not unfavourable for the early crop; but the early cessation of the monsoon rains affected the area under the late crop. Germination was generally satisfactory. The crop was, however, seriously damaged by frost, hailstorms, and absence of seasonable winter rain.

In Bombay deficiency of late rains interfered with the sowing of linseed, and a very restricted area was placed under the crop. The crop suffered from want of moisture and in places completely withered. As regards rapeseed, which is confined to Gujarat and Sind, the season was favourable, and the crop good.

In Hyderabad unfavourable weather conditions affected both the area and the outturn of the linseed crop.

OILSEEDS

1906-07

In the Panjab opportune rains in the autumn were succeeded by satisfactory winter falls; but in the spring the conditions became abnormal, and excessive rains continuing through February, March and April damaged the unirrigated crop.

In the North-West Frontier Province, the winter rains were copious and general. The heavy and well distributed rains from January to March were also beneficial.

In the United Provinces moisture for sowing was insufficient in the eastern sub-montane districts where rapeseed is largely grown. The winter rains were late, and when they arrived in February they did some good; but continued wet and cloudy weather in February and March produced fungoid disease. The injury was, however, not very great, and in Bundelkhand, where linseed is chiefly grown, the crop escaped injury and the yield was good.

In Bengal the season on the whole was not very favourable, particularly for linseed, which suffered in Lower Bengal from excessive rain at the time of sowing, from absence of rain in Bihar at the period of early growth, and from rain and hailstorms in places towards the harvesting time.

In Eastern Bengal the season on the whole was not unfavourable.

In Assam the crop was reported to be generally fair.

In the Central Provinces and Berar sowings and germination were generally successful throughout the provinces. The crop, however, suffered through prolonged cloudy weather, frost, rust, rains, and hail.

In Bombay sowings of linseed began under favourable weather conditions, but the crop suffered through want of moisture in the Deccan except in East Khandesh and Satara. In the Karnátak the crop was reported to be fair except in parts of Bijapur and Dharwar where the December rain proved injurious. As regards rapeseed, which is confined to Gujarat and Sind, the season on the whole was favourable, though the crop in Sind was damaged by rain and hail in places.

In Hyderabad the crop was reported to be good.

Sesamum (til or jinjili)

1892-93

In the Panjab the spring was very dry and the summer rains late, but they were heavy at the end of July, stimulating sowing. The yield was very good.

In the United Provinces sowing was somewhat delayed by the late commencement of the monsoon, but light rain in July proved very favourable. Heavy rains in August did some injury, but the crop on the whole remained in good condition.

In the Central Provinces conditions were favourable except in tracts where excessive rain damaged the crop.

In Berar unfavourable rain and the rotation of crops caused a decrease in the area sown. The crop promised well, but excessive rain at the close of the monsoon affected the yield seriously.

In Bombay there was timely rain, and extended sowings were made in the Deccan and Karnátak; prospects were affected by heavy rain late in the season, but the yield was better than in the preceding year. In Sind the harvest was bad.

In Madras, owing to exceptionally favourable rainfall in February and March, extensive sowings were made and a fair yield was expected, but drought in some places, and exceptionally heavy rain in others, injured the growing crop.

1893-94

In the Panjab, though the season had very different effects in different districts, there was a general increase in the area sown; but the yield was small.

In the United and Central Provinces the weather was suitable for sowings, and the crops promised well at first, but excessive rain in the autumn caused injury, though less in the United than in the Central Provinces.

In Berar the early sowings were impeded by deficient, and the latter sowings by excessive, rainfall; and excess of rain in September injured prospects.

In Bombay there was a considerable decrease in the area sown, owing to untimely rain and an extension of cotton cultivation. Rain was excessive in September, and the yield was not good. In Sind, owing to the want of rain and the early subsidence of the river, the yield was not proportionate to the extended area sown.

Heavy rain also interfered with sowing in the northern and north-eastern parts of Madras, but elsewhere in this province the season was favourable. The late crop was well up to the average in the central districts, but in the southern districts the absence of rain in January and February restricted the area. In no part of the province was the crop good.

In Hyderabad the crop was damaged by excessive rain during the harvesting season.

1894-95

In the Panjab suitable rains and previous high prices favoured extended sowings, but the premature cessation of the early rains combined with an excess in the later rains to reduce the yield.

In the United and Central Provinces the season began well, but injury was afterwards done by excessive rains, especially in the Central Provinces, where they not only damaged the crop in flower but also seriously impeded harvesting operations. In the United Provinces the loss occasioned by the rains was considerable.

In Berar an extension of jawar sowings and the low prices obtained for sesamum in the previous year combined to reduce the area sown. Rain did much damage to the crop in flower and the yield was generally poor.

In Bombay the early sowings were injured by rain, but the increased area sown later more than counterbalanced the loss. The yield was deficient owing mainly to scanty rain after sowing and to excessive rain when the crop was in flower. In Sind with favourable rain and extensive inundation the yield was fairly good.

In Madras heavy rains interfered with sowings of the early crop, especially in the Carnatic. The early cessation of the north-east monsoon rainfall restricted the area sown with the late crop, especially in the Carnatic and the southern districts. Owing to the continuance of unfavourable conditions the yield was very poor.

1895-96

In the Panjab the rainfall was unfavourable, and the crop on the whole was poor.

In the United Provinces the rains were timely and favourable for sowing, but they ceased in July, were moderate in August, and scanty in September and October. The crop did not develope fully, while insects and strong winds in some places did further damage. The yield did not come up to the expectations formed of it.

In the Central Provinces the season was generally favourable for sowing, and rainfall was well distributed to the end of August. This encouraged more extended sowings than usual, but the season became adverse later by reason of deficient rain and the abnormal heat which prevailed to the end of November.

In Berar there was satisfactory rain at the time of sowing, but a long period of drought followed, and the yield was bad.

In Bombay a large area was sown, the rainfall being seasonable, but the crops, both early and late, suffered from want of moisture. In Sind scanty rain and a low inundation curtailed the area, and the young crop suffered from want of moisture.

In Madras the early crop covered an area greater than the average owing to the favourable character of the early rain, and the late crop an area smaller than the average, on account of the excessive sowing of the early crop. Rain was too heavy in some places, while it was deficient in others, and the yield from both crops was bad.

1896-97

Everywhere except in Madras and Bombay an extended breadth of land was sown, but the early withdrawal of the monsoon after the middle of August proved as unfortunate for sesamum as for other crops.

In the Panjab the crop was very poor.

In the United Provinces the prospect of a fair season disappeared with the withdrawal of the monsoon in August, and the crop was greatly injured, especially in unirrigated lands.

In the Central Provinces the area sown was large, but the crop generally fared bad except in Nagpur: and the yield was more or less poor, though much larger than the average owing to the increasing favour with which the cultivators regarded the crop.

In Berar also a large area was placed under the crop owing to the promise at sowing time of a good season, but the drought which supervened injured the crop greatly.

In Bombay, with the exception of Gujarat and Sind, the early withdrawal of the monsoon seriously injured the crop. In Gujarat the season was favourable and this oilseed took the place of damaged cotton. In Sind the inundation was good.

In Madras the sowings of the early crop were greatly contracted owing to the want of seasonable rainfall, while those of the late crop were extended through timely rain. The former crop suffered severely from drought, and the result was a poor yield. The latter did not suffer as much.

1897-98

The late arrival of the south-west monsoon and the desire of the people to place greater breadths of land under food-crops accounted for a contraction of the area sown in most provinces.

The yield varied greatly from about an average crop in Bombay, the United Provinces, and the Panjab, to greatly below the average in Madras, Sind, and Hyderabad.

In the Central Provinces and Berar the conditions were exceptionally favourable; the area sown was more than ordinarily large, and the yield was estimated at about double the average. These large yields so far balanced the less favourable results in other provinces that the aggregate yield for all the reporting provinces was well in excess of the average.

1898-99

In the Panjab the area sown was a little larger than the average, but the cessation of the rain when the crop was ripening was followed by a poor yield.

In the United Provinces the area sown was restricted, and excessive rain towards the latter part of the season deteriorated prospects.

In the Central Provinces the season was unfavourable, owing to the uneven distribution of the rainfall. The early sown crop suffered from excessive rain, and from the sudden withdrawal of the monsoon which left insufficient moisture in the soil and interfered with the development of the plants. The germination of the late sown crop was very defective, owing chiefly to excessive rain at sowing time.

In Berar sowings were made under favourable seasonal conditions, and, though the crop was injured by the failure of the late rains, the yield was large.

In Bombay the increase in the area sown in parts of Gujarat and north Deccan, due to favourable rains at sowing time, did not suffice to counterbalance the large decreases elsewhere,

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which were attributed to insufficient rain in the southern Deccan and Karnátak and to a low inundation in Sind. The season was generally favourable and the yield was large.

In Madras the season was favourable for the late crop, and it grew in good condition on an extended area. But the area under the early crop, which occupies about three times the area sown with the late crop, yielded a poor crop.

1899-1900

In the Panjab the season opened very well, but became more unfavourable as the months passed, and the yield was small.

In the United Provinces the excessive rainfall in the beginning of the season gave rise to apprehensions regarding the prospects of the crop, and later the crop was damaged by continued drought in the Meerut, Agra, and Rohilkhand divisions, where, however, *til* is not extensively sown. In the tracts in which the cultivation of *til* is important the moderate rainfall of August and September proved very beneficial and the yield there was good.

In Bengal on the whole the season was good enough, though the rains were irregular, excessive in some places, and insufficient in others; and the yield was larger than the average.

In the Central Provinces the season favoured sowing operations, but it did not continue favourable, and the abnormal heat of November did much injury. The early crop was fairly successful, but the cold weather *til* in many places began to wither when on the point of maturity.

In Berar the crops withered under the drought and the excessive heat which followed.

In Bombay the early rains were scanty and the later rains failed entirely. Owing to the extremely unfavourable nature of the season the crop withered away in many places, and where it survived gave the poorest yield.

In Madras the area sown was restricted, the south-west monsoon being unfavourable in most places, and the yield was not good.

In Hyderabad the rains failed, and the crop withered under the drought which followed some good rain in September.

1900-01

In the Panjab the area sown was much below the average, heavy floods in some districts restricting sowings.

In the United Provinces the monsoon began late and was generally scanty and unevenly distributed until the third week of August. Then and in September, excellent rain fell, and its distribution was all that could be desired, especially in Bundelkhand, which ordinarily contains four-fifths of the whole area under sesamum. Except for heavy falls in Benares and Gorakhpur in the second week of October, the weather during that month and November was clear and seasonable.

In Bengal the monsoon rainfall was capricious and irregular, and, on the whole, the season was not favourable for oilseeds, which suffered from an excess of rain in many tracts, while in others they suffered from drought.

In the Central Provinces the conditions at the time of sowing, both of the early and late varieties, were generally favourable and a large area was sown. Sesamum is a cheap crop to sow, and it resists drought better than most crops. The difficulty of obtaining the relatively expensive seed of wheat and other spring crops stimulated its cultivation. The early crop suffered somewhat from the heavy rain at the close of August and during September. The germination of the late sown crop, which is more extensively grown in the south of the provinces, also was irregular, heavy rain just after sowing having washed away part of the seed. Drought during October and November, abnormal heat, and insects, following on cloudy weather, also injured the crop. In consequence the yield was smaller than the normal.

In Berar the rains at sowing time and the monsoon rains were favourable; there was no prolonged break, and the crop developed well under congenial climatic conditions.

In Bombay the conditions were good in Káthiáwár at the time of sowing, and double the average area was sown, the increase there and in Gujarat more than making up for the contraction in other parts of the Presidency caused by the preference of cultivators for the cultivation of food-grains.

In Madras the conditions were not good, and though a large area was sown the crop was deficient.

In Hyderabad a few seasonable showers in January, which were badly needed, improved prospects.

1901-02

In the Panjab and the North-West Frontier Province the rainfall at sowing time was unevenly distributed, being excessive in some districts and insufficient in others. The yield was below the average owing chiefly to the early cessation of the monsoon rains.

In the United Provinces rain commenced late, about the 10th of July; the weather in August was favourable and the rainfall above the normal in most districts; a break ensued early in September; but at the end of the month heavy rain was received in the greater part of the provinces. The rainfall of October was deficient. November was practically rainless. Sowings were late, the drought in September retarded growth, and deficient rain in October caused further injury.

In Bengal there was no rain in December and January, and the winter crop suffered severely in consequence. A very restricted area was sown owing to drought at sowing time.

In the Central Provinces the rainfall was very unfavourable. The early sown variety suffered, especially in the north, from excessive rain, the crop being washed out in places, while weeding was retarded or altogether prevented. The conditions were still more unfavourable for the late sown crop, which is put down at the end of August or during the first week of September. Continuous rain at this time interfered with sowings and much of the seed sown was washed out by heavy showers. Germination was very defective and many fields were ploughed up and devoted to other crops. A prolonged break subsequently occurred during which the young plants that germinated languished from want of proper moisture, and some injury was also caused by insects.

In Berar the monsoon rains were heavier than usual and the crop suffered from excessive moisture; during July and August the rainfall was almost continuous, and weeding operations were rendered impossible. Rats and locusts also attacked and injured the crop.

In Bombay the increase in the area sown in parts of Gujarat and Karnátak, due to favourable rains for sowing, was not sufficient to counterbalance the large decrease elsewhere, resulting mainly from the scantiness of sowing rains in the Presidency proper and to a low inundation in Sind. In Gujarat the season was very unfavourable owing to the failure of the late rains, while rats and locusts did some injury in places. In the north Deccan, too, the crop suffered to some extent from the same causes, while in Sind it was affected by a deficient water-supply.

In Madras in the Circars, the Deccan districts, and the west coast the sowings were about up to the average, but owing to the unfavourable season they were very deficient elsewhere, especially in the Carnatic.

In Hyderabad the area was above but the yield below the average, the late rains having been unfavourable.

1902-03

In the Panjab there was an increase in the area sown owing to seasonable rainfall and the low floods in the riverain tracts which facilitated cultivation in lands usually inundated. In Ferozepore, Montgomery, and Jhang however there was a marked falling-off owing to deficient moisture at the time of sowing. The outturn was good in Gujarat, Lahore, and Ambala. Elsewhere it was only average or below average owing to a break in the rains of July and August. The crop was also attacked by insects in places.

In the North-West Frontier Province the crop was above the average, both as regards area and outturn.

In the United Provinces the rains set in rather late in the first week of July and continued till the close of the month. In the first and the last weeks of August rain was fairly general, but in the second and third weeks there was a break over a larger part of the provinces. The rainfall of September was almost uniformly excellent. Light but insufficient rain was also received in October in most districts. November was entirely rainless. The season of light rainfall was in general favourable to the sesamum crop.

In Bengal the monsoon rains ceased early and the drought continued through January in Bihar and east Bengal, while outside that area there were seasonable showers in all the chief oilseeds-growing districts except Murshidabad. There was general and beneficial rain in February and March, but, on the whole, the season was not favourable.

In the Central Provinces the monsoon, though late, was favourable both for the sowing and the growth of the early variety. The late variety was sown under fairly favourable conditions and germination was good. But afterwards conditions were less favourable and there was some deterioration.

In Berar the rains began late and sowings were undertaken later than usual, but subsequently the season was favourable. Although the rainfall generally was below the average, the showers were timely, and the crop was in a thriving condition. Unfortunately when harvest operations commenced at the end of October the weather again turned wet and considerable damage was done to the crop.

In Bombay the monsoon broke much later than usual and did not permit full sowings of the early crop. For the late crop, however, the season was favourable and extensive sowings made up the deficit under the early crop. Though the crop suffered at first a little by a prolonged break in the middle of the season and later on the reaped and ripe crop was somewhat damaged by excessive rain, the season on the whole was favourable. The area and outturn were both deficient in Sind.

In Madras owing to seasonable rainfall an extended area was sown, and the condition of the crop was generally fair.

In Hyderabad the crop was unfavourably affected in places, but nevertheless the total yield was the largest recorded in the territory.

1903-04

In Bombay owing to favourable sowing rains an extended area was placed under sesamum, especially in the Gujarat States. Though the crop suffered in parts of Gujarat from locusts, in the east Deccan from deficiency of moisture, in the Karnátak and Konkan from excessive rain, and in Sind from blight and insects, the season on the whole was fairly satisfactory.

In Madras the rainfall at sowing time was seasonable, and the condition of the crop generally fair.

In the Central Provinces the rainfall during August and September was exceptionally heavy and continuous. This interfered with weeding operations and the growth of the early sown crop, besides impeding the sowings and germination of the late variety. Heavy showers in October considerably damaged the young plants, some fields being ploughed up, and materially deteriorated the prospects of the crop.

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In Berar the damage caused by heavy rain was greater than in the Central Provinces.

In Bengal the season was on the whole favourable, though the crop was injuriously affected by the heavy rain of October in some districts and by the want of rain in November and December in some others.

In the United Provinces the crop at first suffered somewhat from the heavy rain of August and September, but the damage caused by the excessive rain of October and the strong winds that accompanied it was great.

In the Panjab damage was reported from floods and late rains, but fortunately the crop in the important districts was not much affected.

In Hyderabad the crop suffered to a considerable extent owing to heavy rains, although an extended area had been brought under cultivation.

1904-05

In Bombay the area sown was much below that of the preceding year owing to deficiency of rain in the Presidency proper and low inundation in Sind. The early crop suffered through the prolonged break after sowing, but a portion was saved by the late September rains which also induced sowings of the late crop. This started well, but suffered equally with the early crop owing to the absence of subsequent rains.

In Madras also a restricted area was sown owing to want of timely and sufficient rainfall. The condition of the crop was, however, generally fair.

In the Central Provinces and Berar the season was unfavourable. The sowing of the early crop was delayed in some districts owing to the lateness of the monsoon. Subsequently heavy and continuous rain and then a long break checked the growth of the plants and interfered with late sowings. The crop was detrimentally affected by the droughty conditions that prevailed and the damage caused by locusts.

In Bengal the season was not unfavourable at the beginning, but the crop was afterwards damaged by hail, frost, and excessive rain.

In the United Provinces sowings were delayed and restricted owing to excessive rain. The crop suffered from excess of rain at the beginning and from drought at the end of the season.

In the Panjab also sowings contracted on account of the late arrival of the monsoon in most districts and its failure in the Central Panjab. The crop suffered from want of sufficient moisture and the yield was unsatisfactory in all but three districts.

In Hyderabad the season was unfavourable owing to insufficient rainfall in the early months of the monsoon, coupled with failure of the late rains.

1905-06

In Bombay the season was on the whole fairly satisfactory in Gujarat and Khandesh, though the crop suffered to a certain extent through deficiency of late rains; elsewhere in the Presidency proper, the failure of September rains entirely destroyed the crop in many places. In Sind the inundation was favourable and the crop yielded fairly well.

In Madras the rainfall at sowing time was seasonable, and the condition of the crop was generally fair to good.

In the Central Provinces and Berar the early crop was sown under favourable conditions; but the heavy rain of September was detrimental to the sowing of the late crop. The early crop promised well till the middle of September, but heavy rain in the latter half of that month followed in places by cold mists caused deterioration. Insects also damaged the crop in some localities. Where re-sown in properly cultivated land after the heavy rain of September the outturn of the late crop was little below normal; but a large area was not re-sown. In Berar drought damaged the crop.

In Bengal prospects were somewhat gloomy early in the season through want of sufficient moisture; but the season became favourable after the general rainfall in December and January.

In Eastern Bengal the season was not on the whole favourable owing to ill-distributed rainfall.

In the United Provinces deficient rainfall in the latter half of July somewhat restricted the sowings. The rainfall in August and September was on the whole light and October was entirely rainless. The injury from drought proved greater than was anticipated.

In the Panjab the season was on the whole unfavourable for sowings owing to deficient rainfall in July; and two months' drought resulted in a general failure of the unirrigated crop in the Delhi division, and in poor or moderate outturns in other tracts. The rainfall of September, although beneficial, came too late. The crop also suffered from floods in riverain tracts.

In Hyderabad rainfall was insufficient at the time of sowing, and the crop was affected by unfavourable weather conditions.

1906-07

In Bombay favourable early rains induced an extensive cultivation of sesamum in the Presidency proper, and this made good the deficiency in Sind due to the damage done by insect pest in recent years. Although the crop suffered in parts of Gujarat and Khandesh through excess of rain, and in the eastern parts of the Deccan and Karnátak through its deficiency, and in Sind and a few places in the Presidency paper from insects, the season on the whole was fairly ssatisfactory.

In Madras a restricted area was sown due partly to want of seasonable rainfall and partly to the cultivation of groundnut on lands previously cultivated with sesamum. The crop was reported to be generally fair to good.

In the Central Provinces and Berar conditions at sowing time varied much in different districts, being generally favourable north of the Nerbudda and in Chhattisgarh and Berar, but too wet elsewhere. Continuous heavy rain later on damaged the plants and stunted the growth of the young seedlings in many districts; but timely breaks in August and September gave an opportunity both for weeding and for sowing the late variety of the crop, and improved the prospects a great deal. And although considerable damage was done to the young plants by heavy rain in October, conditions were favourable over half the Central Provinces. In Berar, however, the season was not so favourable.

In Bengal the season on the whole was not very favourable, as the crop suffered in Lower Bengal from excessive rain at the time of sowing and from absence of rain in Bihar at the period of early growth.

In Eastern Bengal the season began well with a great deal of moisture in the soil, but the crop suffered from the long continued drought of the cold weather.

In the United Provinces weather conditions at sowing time were favourable. The crop germinated well and weeding was properly done. In Bundelkhand where sesamum is mainly grown, the season was favourable; elsewhere it was less satisfactory owing to want of rain in the eastern districts and to excessive rain accompanied by strong easterly winds in the western districts.

In the Panjab a much restricted area was placed under sesamum owing to deficient rainfall during July and early August. The crop was equally unfortunate in respect of yield. The heavy rains of September being very injurious.

In Hyderabad rainfall was well distributed and the crop was reported to be good.

JUTE

1892 Excessive rainfall injured the plant in some districts, but on the whole the season was good, and a larger area was sown under the stimulus of high prices.

1893 The area sown was nearly equal to that of 1892, but the crop was greatly injured in most districts by heavy and continuous rain in the middle of the season.

1894 Rain was abundant and well distributed to the end of May, and the area sown was about equal to that of 1893. In June rain was deficient in several districts, though normal or in moderate excess in parts. At the end of July there was general and heavy rain throughout north Bengal, and during the first-half of August the fall was favourable in every district.

1895 The rainfall was in excess of the normal quantity in April and the first-half of May, heavy in the second-half of May in east Bengal, and less than the average in other parts. In the next two months it was deficient, and in the first-half of August it continued deficient in central and western Bengal, and was excessive in north Bengal and north Bihar. The area sown was almost the same as in the preceding year; but the yield was larger.

1896 Owing to scanty rain when sowings were made the area placed under the crop was a little smaller than in 1895. In May and the early part of June excessive rain interfered with growth and with weeding. In July and August it was deficient, still further impairing the prospects of the crop in most districts.

1897 On the whole the season was favourable, and there was enough water for steeping.

1898 The area sown was smaller than in 1897, owing partly to the unfavourable character of the season at sowing time and partly to the low prices of jute in 1897 and to high prices of food-grains.

1899 The weather, though seasonable in the beginning, became extremely unfavourable towards the end of the season.

JUTE

1900 There was some deficiency of rain in March and April, which prejudicially affected sowings in a few places. In May and the first fortnight of June, the rainfall was also light, but good rain later greatly improved the prospects of the crop. In July there was heavy rain in most districts, but a partial drought followed in August which, combined with a want of flood water from the rivers, hampered steeping operations in north and east Bengal, and in a few cases diminished the yield. Fair rains fell in the first-half of September, but almost too late to have much effect on the yield.

1901 The rainfall in the earlier months of the year was almost uniformly unfavourable. In June there was heavy rain in almost all the important jute-growing districts; in July the rainfall was very irregular but not seriously deficient; the rainfall of August was again capricious, and was in considerable defect in some important jute-growing districts. There was heavy rain early in September, and thereafter the weather was fine and hot. On the whole, the weather was unfavourable up to the close of May, but it was exceptionally favourable afterwards.

1902 In Bengal the season was abnormal. A prolonged drought ended in the middle of March. In April and May the rainfall was excessive, especially in the Dacca and Tippera divisions. In south-eastern Bengal the weather was, therefore, very unfavourable for sowings, and to a less extent this was the case also in north-eastern Bengal. The heavy rain in May also retarded weeding. Since then the weather conditions were normal, but the prospects of the crop were not encouraging.

In Assam the weather was unfavourable at the beginning of the season, and the adverse influences persisted to the end. The crop was injured by excessive rain and flood.

1903 In Bengal rainfall was deficient at the time of sowing, but later on conditions improved owing to the favourable rainfall in August. On the whole the season was generally a favourable one.

In Assam the season was unfavourable at the beginning owing to drought in April and May, but subsequently weather conditions turned favourable, as was the case in Bengal.

1904 In Bengal an extended area was placed under the crop. In the early part of the season excessive rain damaged the crop in the most important jute-growing districts. In other districts the weather was generally favourable, though weeding operations were hindered by heavy rain in places.

In Assam the season was very unfavourable. Heavy rain in April and May, accompanied in places by floods and hailstorms, greatly diminished the area sown and seriously affected its prospects.

1905 In Bengal the weather was on the whole moderately favourable, though in some tracts, particularly in the Rajshahi Division, weeding operations were seriously impeded by the spring and summer rains. Damage by caterpillar was reported from some of the south-Gangetic districts, and by floods from certain places in Eastern Bengal; but it was reported that the floods affected the quality of the crop rather than the outturn.

In Assam the season was favourable except in Sylhet. A very high flood in the Brahmaputra suspended the cutting of jute for some days, but did no material damage to the crop.

1906 In Bengal there was no rain in April; fortunately, however, the drought occurred before sowings had generally been made. After the drought, the rainfall was generally good during May, June, and July, though more or less short of the normal. This shortage, however, facilitated weeding and thinning operations. In August there was very good rain; but in some districts the fall was exceptionally heavy, and considerable damage was done by floods.

In Eastern Bengal and Assam, at the end of April and the beginning of May a considerable portion of the early sowings was damaged and late sowings were retarded by want of rain. The prospects of the crop became extremely doubtful, when in the second week of May, general rain entirely changed the situation. Prospects continued good until August, when a flood of abnormal height and long duration necessitated the stoppage of cutting over a large area. The probable result of this flood was injury to the quality of the uncut jute rather than actual loss of the crop.

INDIGO

1892-93

In Bengal the season was unfavourable at sowing time owing to deficient rain in autumn and spring; conditions improved later with favourable rain, but excessive rain and cloudy weather during manufacture again operated injuriously. In Bihar the weather was favourable throughout, although in some parts very heavy rain and floods caused injury.

In the United Provinces the autumn rains were late, heavy, and continuous, and the plants suffered to some extent; but the yield of dye was much better than in the preceding year.

In the Panjab a protracted drought in the early summer retarded sowings, and the area sown was very much reduced.

In Madras the crop was on the whole good, and it would have been very good throughout but for the unfavourable character of the season in December.

1893-94

In Bengal the rainfall was favourable at sowing time, and a large area was sown, but heavy and incessant rain and floods caused great injury.

In the United Provinces a favourable season and a rise in the price of indigo at Calcutta led to an increase in the area sown: the seed germinated freely, and the early commencement of the rains greatly benefited the crop.

The rainfall was favourable in the Panjab, and the state of the canals generally satisfactory, the result being a large area sown and a good yield.

In Madras larger sowings were made owing mainly to timely rains.

1894-95

In Bengal the season was on the whole somewhat late, but the weather was generally favourable. In Bihar the early part of the season was particularly good, but it was followed by a long period of drought which injured the produce in most districts in the early part of the manufacturing season.

In the United Provinces although the seed germinated well and timely rain benefited the crop, it suffered from deficient rain in the second-half of July and from heavy and continuous rain in August; but the average condition was not much below that of the preceding year.

In the Panjab the area sown was increased, and the crop was good.

In Madras the large area sown and the fair yield secured in the preceding year led to a further increase in cultivation; the yield was generally fair.

1895-96

In western Bengal the rainfall on the whole was deficient and untimely; in northern and eastern Bengal and in Bihar it was favourable in most places.

In the United Provinces the crop suffered at first from want of rain in most districts, and then improved with moderate and favourable rainfall, except in the Upper Doab where it suffered from floods. On the whole, however, the condition of the crop was better than in the preceding year.

In the Panjab the crop was fair.

In Madras the season was favourable in Kistna and North Arcot where a large area was placed under indigo, but elsewhere sowings were restricted owing to the insufficient rain of the south-west monsoon. The yield generally was fair.

1896-97

In Bengal, owing to the early cessation of the monsoon of 1895 and the scanty showers in the spring of 1896, moisture was generally deficient at sowing, the deficiency continuing in most districts with the result that the yield was below the average. In Bihar the first cuttings were generally poor, but the dry weather gave an extremely and unusually good second cutting which in many places in north Bihar more than compensated for the deficient first crop.

In the United Provinces germination was satisfactory and prospects very favourable until July, but the late rains were scanty and unevenly distributed. The crop suffered in consequence.

In the Panjab the rainfall was scanty, but the condition of the young crop was generally fair. Later in the season the continued deficiency of rain was felt severely, and the crop on unirrigated land dried up completely.

In Madras the season opened with favourable conditions, and an increased area was sown; but the rain thereafter was deficient and the yield small.

1897-98

In Bengal the area sown was small, the contraction being due to insufficient rain at sowing time. The crop suffered greatly from the absence of seasonable rain in Bihar and north Bengal and from excessive rain in south Bengal.

In the United Provinces the season was not favourable; the growth of the plants was interfered with, early in the season, by excessive heat and insufficient rain, and the heavy

INDIGO

rain of July and August flooded the low lands and greatly injured the indigo growing on them.

In the Panjab the crop is grown on irrigated lands only, and its condition was generally good.

In Madras the area sown was small, the contraction being due not so much to the deficiency of seasonable rain as to the replacement of indigo by food-crops.

1898-99

In Lower Bengal the season was generally unfavourable, but it was favourable in north Bihar.

In the United Provinces the season was not favourable. The crop started well, but a large proportion was lost through insufficient irrigation and injury by insects, and further serious injury was done by continuous heavy rain, especially in the Benares division.

In Madras and the Panjab also the season was on the whole unfavourable, but the contraction in the area sown was stated to be partly due to the low prices of 1897.

1899-190

In Bengal the season in the beginning was not unfavourable, but the excessive rain which fell in June, July, and August was most injurious, and the crop was also injured in many districts by the floods which followed the excessive rain.

In the United Provinces the crop continued in good condition until the end of June, but excessive rain fell in July and seriously injured the plant everywhere, especially in the eastern districts. The rains then fell away and drought, particularly in the Agra and Meerut divisions, added to the injury done by heavy rain.

In the Panjab the crop suffered from the absence of rain and the stoppage of canal irrigation in Multan and Dera Ghazi Khan. In some unirrigated tracts it failed entirely.

In Madras also the season was generally unfavourable and the yield deficient.

1900-01

In Bengal sowings and the early growth of the crop were retarded by the scanty rain of April and May. Fairly good rain in June and July was followed by an interruption in August, but prospects were improved in Bihar by abundant rain in September, which, however, was accompanied by floods and consequent injury to the crop in Lower Bengal. In October sufficient rain fell, and the season generally was much better than that of 1899. The area, however, was restricted, owing to the substitution of other crops for indigo in north Bihar under the discouragement of the comparatively low level of prices during the preceding three seasons. The yield on the whole was good in the districts of north Bihar, but very poor in Lower Bengal where, however, the cultivation of indigo was greatly restricted.

In the United Provinces, unlike Bengal, the area sown increased, the increase being ascribed to the temporarily improved prices in the previous season. It may be that that improvement was an inducement to native growers of indigo, while it did not remove the discouragement to European planters. In the early months of the season prospects were good, but heavy rain in the Doab towards the end of the season reduced the yield.

In the Panjab the rains were late at sowing time, but the crop did well later when the rain came down abundantly.

In Madras the high prices of food-grains induced cultivators to restrict their sowings of indigo. The crop sown was very fair on the whole.

1901-02

In Bengal the season was on the whole unfavourable. During the early months of the year the rainfall was in slight defect, but in May there was good and generally well distributed rain. The monsoon rains broke late and were deficient in June and July. There was little rain in October, and the showery weather at the end of November did not extend to north Bihar. Besides the unfavourable character of the season, the area was affected by the fall of prices resulting from the competition of synthetic indigo.

In the United Provinces the reduction of area was proportionately much greater than in Bengal. The prospects of the crop, which had been affected by the late arrival of the monsoon, continued to be unsatisfactory until the end of August, but fine dry weather in September favoured manufacture.

In the Panjab a restricted area was sown owing to late inundation from canals in the south-western districts and the closing of factories consequent on the fall in prices. There was an insufficiency of rain and canal irrigation after the sowings, and some injury was done by locusts.

In Madras an extended area was sown in Nellore and Kistna owing to favourable weather for sowings, but almost everywhere else the cultivation of indigo continued to decline. The low prices realised, and the high prices of food-grains, were the principal reasons assigned for the decrease, but in the Carnatic, where the decrease was marked, the season was very unfavourable.

1902-03

In Bengal the season was generally very unfavourable owing to capricious and ill-distributed rainfall; and the outturn was the worst on record. The unfavourable prospects of the industry caused by the competition of synthetic indigo also contracted the area, which had been steadily diminishing in past years.

In the United Provinces the decline in the cultivation of indigo caused by the fall in prices was very rapid and pronounced. The late commencement of the rains stunted the growth of the plant, which was further retarded in places by the continuous rain of July. The dry weather during August was, however, favourable and the produce of dye was reported to have been satisfactory.

In the Panjab the decrease in the area under indigo was almost as great as in the United Provinces, the contraction was due largely to the small margin of profit left by the fall in prices, but partly also to the insufficiency of canal water and unfavourable weather.

In Madras also the cultivation of indigo was fast declining as the low prices realised caused preference to be given to food-crops and earthnut. The crop was reported to be generally good.

1903-04

In Bengal the season opened unfavourably, the rainfall being very insufficient, but late good rain was received, and thenceforward the conditions were favourable.

In the United Provinces the monsoon was unusually late in arriving, and general rain was not received till the end of the third week of July. Injury from drought was therefore reported from some places; but the rains, when they did come, were good, and the damage was much less than had been anticipated. In the Doab, where the crop was promising from the beginning, the yield was satisfactory. Elsewhere it was not so good.

In the Panjab there was an extension of cultivation due to timely running of the canals and seasonable rainfall. The condition of the crop was also good.

In Madras also owing to good and timely rainfall the cultivation of indigo showed a slight improvement, and the condition of the crop was reported to be generally good.

1904-05

In Bengal the season was very unfavourable. During the months of January to April June and September the rainfall was deficient; it was heavy in May and October, while in July and August the fall was excessive and did considerable damage to the crop in many districts of Bihar.

In the United Provinces sowings greatly contracted. Prospects were, however, good at the beginning of the season; but the heavy and continuous rain, which lasted from the second week of July to the last week of August, caused serious damage to the crop.

In the Panjab insufficiency of canal water interfered with sowing operations in most places. Conditions were, however, somewhat favourable in Multan, resulting in an increased area being sown in that district. The condition of the crop was good.

In Madras the area contracted to about half of that of the preceding year owing to scanty rains and fall in prices. The condition of the crop was generally fair.

1905-06

In Bengal the area contracted as usual. Owing to protracted cold weather sowings were begun later than usual in Bihar. The rainfall was irregular and damage was further done to the crop by excessive rain and floods. The season on the whole was thus very unfavourable.

In the United Provinces the area contracted to almost half of that of the preceding year. Hot winds and continued want of rain injuriously affected the crop in the Doab. In the rest of the province rain was sufficient.

In the Panjab there was an increase in the area sown, as compared with the preceding year, owing to early and satisfactory working of the canals. The condition of the crop was on the whole fair.

In Madras contraction in area continued owing partly to want of timely rains and partly to the extensive cultivation of food-crops in preference to indigo. The condition of the crop was reported to be generally fair.

1906-07

In Bengal sowings were retarded a little for want of timely rains and the crop suffered seriously later on from excessive rain and high floods in North Bihar.

In the United Provinces sowings were made at the usual time, and germination was satisfactory. The season on the whole was favourable, though the crop suffered in places from hot winds, excessive rain, and insect pest.

In Madras an extended area was sown, which was due partly to seasonable rainfall and partly to an opportune rise in the price of indigo. The crop was reported to be generally good.

In the Panjab the late opening of the canals interfered with sowing operations. Insects damaged the crop in places, but the general condition of the crop was reported to be normal.

SUGARCANE

1899-1900 In Bengal the season was generally favourable to the crop at the beginning, but excessive rain in some parts, in August, September, and October, adversely affected prospects, while in a few places the crop was injured by the absence of seasonable rainfall and by insects.

In the United Provinces the season was favourable until the autumn rains set in; but the excessive rainfall of June and July seriously injured it, and further injury was caused by the scanty rainfall of the succeeding months. Slight injury from insects was also reported from several districts.

In the Panjab the unfavourable weather conditions affected even the crop grown on irrigated lands, and cane grown on unirrigated land was practically a failure. The crop was stunted in growth and deficient in juice, while owing to the great scarcity of fodder, the cane was used entirely or very largely in many districts as cattle-food.

In Madras the weather in many places was unfavourable, and some of the crop suffered from want of water, especially in the Circars.

1900-01 In Bengal the rainfall to the end of July was generally in defect; in August it was badly distributed and more or less deficient; in September it was copious and general; there was very little in October, and in November and December practically none. On the whole, the monsoon conditions were not very favourable to the crop, which also, in a few districts, suffered to some extent from insect pests.

In the United Provinces the rains of February and March favoured sowings, and the crop germinated freely. Hot winds and afterwards insufficient rain in June and July retarded growth; but the crop was generally very healthy and promising. The rainfall was moderate in August, but unusually heavy in September, and accompanied by high east winds. Floods also caused some local injury on low lands. On the whole, the autumn rains greatly benefited the crop. November was rainless, but December and January were exceptionally wet; and cane-pressing was delayed in places by excessive rain.

In the Panjab the area under cane was slightly reduced, owing to dry weather at sowing time in April and May and to the fact that prices of food-grains were so high that it was more profitable to grow them than sugar on some lands. In Hoshiarpur, one of the chief cane-producing districts in the province, another reason assigned for the decline was the supersession of indigenous by imported sugar. In Sialkot it was said that a great number of cultivators emigrated with their cattle to other places owing to the dearness of food and scarcity of fodder in the previous year, and as most of the cane crop was used as fodder in the preceding year, the supply of seed was small and the price high. Although there was, on the whole, a decline in the area under cultivation, both irrigated and unirrigated, the season was far more favourable than the previous year.

In Madras early rains and an adequate supply in tanks led to increased sowings. The condition and yield of the crop were generally fair.

1901-02 In Bengal, on the whole, the season was not unfavourable, but rain was very scanty in February, March, and April, and the crop suffered from locusts and insects in a few districts. In December and January again there was a complete absence of rain. The area sown was below the normal owing to the unfavourable character of the early part of the season.

In the United Provinces the rains of January and February 1901 were ample and germination was good, and the supply of water in the hot months was generally sufficient except in a few districts. Injury to the crop in several districts resulted from various causes—hot winds, insects, and the late arrival of the monsoon; but it was serious only in the Rohilkhand division and in parts of the Meerut division where the crop was attacked by grasshoppers. The autumn rain in July, though below the normal, was well distributed, and the rain in August was favourable and prospects improved materially, though the injury caused in the tracts mentioned could not altogether be made good. The season later on was too dry to give a full yield of juice. In the two important cane-growing divisions of Meerut and Rohilkhand the crop was unpromising from the beginning owing to the injury caused by grasshoppers, and the drought of September and October further affected growth. In the other divisions the yield was somewhat better.

In the Panjab the area under sugarcane increased in irrigated tracts, but elsewhere there was a contraction due to scanty rain in March and April. The crop suffered from insects, locusts, and rats, and seriously from drought in September and October and the severe frost that followed. The result was so bad that in parts of Gujranwala the juice was not extracted and the cane was given as fodder to the cattle. The crop on the whole was below the average and, compared with the area, the estimated yield was disproportionately small. Another reason assigned for the decline was the supersession of indigenous by foreign sugar.

In the North-West Frontier Province the crop was on the whole above the average. Though the failure of the rain at the time of its maturing caused some decrease in the yield, the decline was more than compensated by the increased area sown.

In Madras, on the whole, a full normal area was planted. Rainfall was deficient in some places; but the yield was on the whole fair, though in the Circars the crop was far from good, and in the Godavari delta disease caused material loss.

1902-03

In Bengal the season was not generally unfavourable, though excessive rain at the time of planting caused some contraction of area, and damaged the young plants in parts of north and east Bengal; while a few districts in Bihar, on the other hand, suffered from drought.

In the United Provinces the rains at sowing time—that is, February and March—were very deficient. Germination was, however, good except in the eastern districts, where later on drought and white-ants did further damage. The autumn rains in July were fairly continuous, well distributed, and generally above the normal. In the first and last weeks of August rain was fairly general, but in the second and third weeks there was a break over the greater part of the provinces, and in places some injury from drought resulted. The rainfall in September was almost uniformly excellent. Light rain was also received in October in most districts, while November and December were entirely rainless and were followed by severe frost, which damaged the crop more or less in the western half of the provinces just when pressing had begun.

In the Panjab there was a decrease in the area sown in all districts except Jalandhar and Karnál owing to the absence of rain and deficient supply in the canals in February and March. The monsoon rainfall of August and September was satisfactory, but the subsequent failure of the winter rains and the severe December frost deteriorated the condition of the standing crop, and in parts of Lahore, Sialkot, and Amritsar it was used as fodder. The yield, on the whole, was consequently below average.

In the North-West Frontier Province the season was favourable for the sugarcane crop, and the inadequate rainfall had very little effect on this crop as it is grown exclusively on irrigated lands, and the canal irrigation on which the crop depends was satisfactory.

In Madras there was a contraction in the area owing to the shortness of water-supplies in parts at the planting season. The decrease was general and was particularly noticeable in South Arcot where it was ascribed to a fall in the prices of jaggery. The crop was reported to be generally good.

1903-04

In Bengal, owing to the drought that prevailed throughout the greater part of the province in the early part of the season, the area contracted slightly. The cane-growing and harvesting seasons from June to December were, however, favourable and gave much better results than had been anticipated at first.

In the United Provinces the rains at sowing time—that is, February and March—were very deficient as was the case in the preceding year. The crop, however, germinated well and the supply of water for irrigation was generally sufficient. Injury from hot winds and the very late arrival of the monsoon was reported from a number of districts; but the damage done was serious only in the Rohilkhand and Benares divisions. The rainfall of August and September was very favourable; but abnormally heavy and continuous rain fell in the first fortnight of October in most places. November was rainless, while trifling showers fell in parts of Rohilkhand towards the end of December. The prospects of the crop somewhat deteriorated in consequence of the heavy and continuous October rain, and the strong winds which accompanied it laid the cane which flowered in places. The juice was accordingly reported to be thin and the outturn of *gur* lower than usual.

In the Panjab conditions were favourable for sowing and the monsoon rains, although somewhat delayed, were satisfactory. Excessive rain, however, caused some damage to the crop in low-lying lands, more specially in the riverain tracts of Sialkot and Amritsar. The crop also suffered from winter frosts in Ambala. In two tahsils of Gujranwala it was reported that about three-quarters of the entire crop was consumed as fodder, while in another it was damaged by insects. But nevertheless an average yield was harvested.

In the North-West Frontier Province the season was favourable throughout except in Peshawar where the matured crop suffered to a certain extent from the heavy rains in January. The canal irrigation on which the crop depends was slightly deficient in the Nowshera tahsil of that district, where, owing to an aqueduct being washed away, irrigation was interrupted for six weeks.

In Madras there was a contraction in the area sown owing partly to heavy rain at sowing time, but chiefly to the fall in the price of jaggery. The condition of the crop was reported to be generally good.

1904-05

In Bengal favourable conditions prevailed at the planting season; excessive rain however damaged the crop at the early stage of its growth in many districts, while drought generally prevailed in September and October. Some damage was also done to the standing crop by late floods in East Bengal and in Murshidabad, while the rest of the province continued to suffer from drought to the end of the season.

In the United Provinces the season was very favourable throughout. The rains in February and March favoured sowings and an extended area was sown. Germination was good and the supply of water for irrigation sufficient. The general rain in June was very opportune and greatly benefited the crop, which continued healthy and promising almost everywhere, although its full development was somewhat affected in places by insufficient rain in

SUGARCANE

September. A succession of winter storms and cloudy weather in January, however, delayed pressing operations in some places.

In the Panjab general rain in March was favourable for sowings. The monsoon was late and unsatisfactory except in the south-east Panjab, but sugarcane being an irrigated crop did not suffer much from the deficiency in the rainfall. Insects appeared in Gujranwala and Sialkot, and a portion of the crop was fed to cattle. The severe frosts of January-February did harm in the North Panjab, but most of the crop had been removed before the cold wave set in. The outturn of *gur* was satisfactory.

In the North-West Frontier Province heavy rain in March interfered with sowings; but the rest of the season was favourable throughout, except that the intense cold of January-February much retarded the cutting and pressing of the cane.

In Madras a larger area than in the preceding year was placed under the crop owing to the early supply of water in the channels and the rise in the price of jaggery. The condition of the crop was reported to be generally fair.

1905-06

In Bengal rainfall was irregular and ill-distributed, and the cane was damaged in places by pests and disease, but, on the whole, the season was not unfavourable to the crop.

In Eastern Bengal the season was generally unfavourable for sugarcane, the crop suffering from excessive rain at the planting season and from unusually high floods in September and October.

In the United Provinces rains at sowing time were ample and an extended area was planted, except in the Meerut and Agra divisions where damage by frost to the seed-canes restricted sowings. The monsoon was late, and some injury from hot winds and insects was reported; but the deficiency of rain after the monsoon broke affected the crop more seriously. Prospects further deteriorated in consequence of continued drought. In the Meerut, Agra, and Rohilkhand divisions, where from the beginning prospects were unfavourable, and the monsoon rain very deficient, the plant was stunted, and the quality of the juice inferior. In the rest of the province however the season was less unfavourable.

In the Panjab also the season was distinctly unfavourable. A fair fall of rain in July was followed by a two months' drought, which checked the development of the crop. Heavy rain in September effected only a partial improvement. Insect pests were also reported from places.

In the North-West Frontier Province the season was generally favourable for sowing. The standing cane was in some places slightly damaged by frost in the beginning of January, but latterly milder weather prevailed.

In Madras an extended area was planted owing partly to seasonable rainfall and partly to a rise in the price of jaggery. The condition of the crop was reported to be generally fair.

1906-07.

In Bengal weather conditions during the sowing season were, on the whole, favourable. The crop in North Bihar suffered from heavy rain and consequent floods in July and August, and from drought in September and October. In the rest of the province the season was favourable.

In Eastern Bengal and Assam the season, on the whole, was not unfavourable to the sugarcane crop.

In the United Provinces, the improved prices of raw sugar in the preceding year and the sufficiency of rain in February and March, when the cane crop was sown, stimulated its cultivation. The crop germinated freely and irrigation was sufficient. The monsoon rains were timely, ample, and beneficial to the crop, except in parts of the Benares, Gorakhpur, and Fyzabad Divisions, where floods in August and scanty rain in September and October damaged the crop. Grasshoppers also caused some injury in a few localities. On the whole, however, the season was very favourable in the greater part of the province.

In the Panjab the season was a decidedly favourable one, and there were no complaints from insect pests.

In the North-West Frontier Province the season was generally favourable for sowings, and the crop, on the whole, was a good one.

In Madras rainfall was not seasonable, but the crop was reported to be either good or fair.

Tables of Area and Yield

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ABSTRACT TABLE OF AREA AND PRODUCTION

			1892-93	1893-94	1894-95	1895-96	1896-97	1897-98	1898-99
Rice	acres		48,358,707	49,525,300	50,002,241	49,396,747	48,021,462	52,205,466	52,682,050
	cwt		420,282,625	459,119,400	497,901,780	415,355,100	275,676,100	498,350,700	505,640,600
Wheat	acres		27,759,158	28,716,735	28,421,851	24,071,320	20,579,727	24,537,775	25,370,078
	tons		7,649,105	7,268,982	6,998,930	5,380,342	5,363,289	7,208,384	6,837,674
Cotton	acres		13,422,107	15,404,156	14,959,103	14,515,662	14,643,495	13,683,437	14,602,892
	bales (*a*)		2,318,028	2,556,537	2,239,019	2,882,042	2,651,597	2,653,710	3,140,130
Linseed	acres	pure	3,824,700	4,854,100	3,781,684	2,954,093	2,020,747	2,707,887	2,829,475
		mixed	604,000	503,000	603,000	560,000	345,000	425,000	445,000
	tons	pure	489,900	559,800	271,798	287,407	162,479	354,994	336,610
		mixed	94,000	65,000	53,899	82,462	58,504	90,976	91,284
Rape and mustard	acres	pure	3,674,900	3,676,000	3,582,181	3,004,913	2,910,682	3,822,996	3,109,988
		mixed	1,731,000	1,557,000	1,613,000	1,290,000	1,526,000	1,459,000	1,509,000
	tons	pure	622,580	546,216	521,031	462,064	441,814	682,807	567,698
		mixed	367,000	240,000	216,050	359,979	340,602	436,451	410,983
Sesamum (til or jinjili.)	acres	pure	2,423,800	2,619,240	3,000,969	3,171,472	3,369,198	3,662,109	3,530,625
		mixed	407,000	509,000	448,000	560,000	672,000	584,000	713,000
	tons	pure	239,916	222,609	277,933	282,129	250,958	355,817	348,118
		mixed	40,000	50,000	40,000	55,000	45,000	60,000	70,000
Jute (*b*)	acres		2,135,142	2,222,600	2,264,300	2,242,700	2,196,600	2,151,600	1,624,400
	bales		5,717,400	5,001,700	6,144,300	5,551,000	5,717,000	6,839,000	5,334,000
Indigo	acres		1,218,766	1,552,008	1,688,042	1,414,002	1,608,901	1,339,099	1,010,318
	cwt		179,056	179,437	237,494	190,924	168,673	166,812	139,320
Groundnut	acres		...	...	...	243,400	306,026	214,803	217,814
	tons		...	...	...	...	...	55,962	70,561
Sugarcane	acres		...	...	...	...	...	...	2,485,681
	tons		...	...	...	...	...	...	2,076,234

(*a*) The production in bales for the years up to 1903-04 and for 1905-06 represents the quantities exported from India and consumed in the mills. For 1904-05 and 1906-07 the reported estimate of production, which is greater than the total of exports and mill consumption, has been stated. See note (*g*) on page 42

(*b*) See footnotes on page 47 regarding the acreage and yield of jute

IN EACH YEAR FROM 1892-93 TO 1906-07

1899-1900	1900-01	1901-02	1902-03.	1903-04	1904-05	1905-06	1906-07		
51,969,635	48,932,493	48,511,190	51,842,390	49,461,465	51,586,900	54,428,600	54,521,600	acres	Rice
451,553,460	413,506,700	384,294,100	469,484,800	439,280,700	448,461,100	433,138,300	430,258,400	cwt	
18,687,782	23,864,550	23,446,161	23,395,277	28,413,743	28,470,200	26,357,400	29,488,900	acres	Wheat
5,357,142	7,093,529	6,090,524	7,971,446	9,641,145	7,582,040	8,579,140	8,447,840	tons	
11,884,576	14,231,150	14,506,295	16,581,046	18,025,000	19,918,000	21,072,000	22,344,000	acres	Cotton
2,093,521	2,703,648	3,310,733	3,750,549	3,579,643	3,826,000	3,967,000	4,908,000	bales (*a*)	
1,648,903	2,417,991	2,546,604	2,592,237	3,609,079	3,747,400	2,701,800	3,028,300	pure — acres	Linseed
409,000	466,000	498,000	621,000	592,000	647,000	567,000	633,000	mixed — acres	
206,220	247,024	251,808	359,568	466,832	298,400	265,200	306,900	pure — tons	
89,464	79,000	100,113	122,000	105,000	49,000	88,000	113,000	mixed — tons	
2,693,768	4,077,366	3,082,662	3,421,883	3,583,445	3,640,000	4,002,800	4,127,700	pure — acres	Rape and mustard
1,381,000	1,449,000	1,461,000	2,335,000	2,429,000	2,509,000	2,026,000	2,210,000	mixed — acres	
447,946	650,225	525,035	521,926	623,206	540,400	563,600	636,900	pure — tons	
425,471	372,000	430,617	516,000	542,000	336,000	398,000	424,000	mixed — tons	
3,316,067	4,052,491	3,711,711	4,435,648	4,838,164	4,178,700	3,914,200	3,844,100	pure — acres	Sesamum (til or jinjili.)
517,000	622,000	611,000	717,000	747,000	600,000	700,000	775,000	mixed — acres	
213,256	72,856	96,210	93,587	539,478	300,400	344,800	441,100	pure — tons	
60,000	75,000	60,000	80,000	70,000	35,000	45,000	90,000	mixed — tons	
1,961,800	2,093,400	2,263,800	2,142,700	2,275,050	2,899,700	3,128,300	3,445,300	acres	Jute (*b*)
5,412,000	6,526,000	7,438,000	6,577,000	7,241,000	7,400,000	8,205,200	8,736,200	bales	
1,026,900	990,375	791,190	645,511	706,634	476,900	383,600	452,800	acres	Indigo
111,890	148,029	112,819	79,207	102,802	58,900	46,500	69,700	cwt	
173,946	294,408	434,222	491,155	474,193	459,700	485,900	601,400	acres	Groundnut
9,250	28,631	63,298	61,854	94,419	214,900	211,200	299,000	tons	
2,541,470	2,404,156	2,316,391	2,207,829	2,114,592	2,244,800	2,111,000	2,348,800	acres	Sugarcane
1,860,005	2,276,748	2,022,476	1,906,784	1,871,986	2,169,000	1,725,500	2,223,400	tons	

Note.—The figures for 1906-07 are subject to revision

RICE

Province	acres	cwt	Province	acres	cwt
Bengal (a)			*Lower Burma*		
1892-93	37,324,907	333,956,225	1892-93	4,625,600	50,346,000
1893-94	37,886,500	374,227,800	1893-94	4,928,600	47,874,000
1894-95	38,639,500	416,857,200	1894-95	4,793,341	45,381 980
1895-96	37,447,600	317,514,600	1895-96	5,068,147	41,481,000
1896-97	36,177,400	179,637,400	1896-97	5,224,062	47,679,000
1897-98	39,549,500	398,142,000	1897-98	5,720,766	52,217,000
1898-99	39,605,400	405,842,900	1898-99	5,910,650	44,851,000
1899-1900	39,490,500	357,956,360	1899-1900	6,050,135	54,160,000
1900-01	36,013,900	311,508,600	1900-01	6,326,993	52,975,000
1901-02	35,094,800	272,201,900	1901-02	6,558,190	60,602,000
1902-03	37,553,700	358,977,300	1902-03	6,553,890	53,022,000
1903-04	34,931,500	316,669,700	1903-04	6,761,665	64,411,000
1904-05	38,355,200	347,229,100	1904-05	6,909,900	60,735,000
1905-06	25,150,600	227,967,500	1905-06	6,713,400	57,940,000
1906-07	24,506,200	195,461,600	1906-07	6,974,700	61,924,000
Eastern Bengal and Assam					
1905-06	15,960,200	101,397,600			
1906-07	16,105,800	122,476,700			
Madras			*Total*		
1892-93	6,408,200	35,980,400	1892-93	48,358,707	420,282,625
1893-94	6,710,200	37,017,600	1893-94	49,525,300	459,119,400
1894-95	6,569,400	35,662,600	1894-95	50,002,241	497,901,780
1895-96	6,881,000	56,359,500	1895-96	49,396,747	415,355,100
1896-97	6,620,000	48,359,700	1896-97	48,021,462	275,676,100
1897-98	6,935,200	47,991,700	1897-98	52,205,466	498,350,700
1898-99	7,166,000	54,946,700	1898-99	52,682,050	505,640,600
1899-1900	6,429,000	39,437,100	1899-1900	51,969,635	451,553,460
1900-01	6,591,600	49,023,100	1900-01	48,932,493	413,506,700
1901-02	6,858,200	51,490,200	1901-02	48,511,190	384,294,100
1902-03	7,734,800	57,485,500	1902-03	51,842,390	469,484,800
1903-04	7,768,300	58,200,000	1903-04	49,461,465	439,280,700
1904-05	6,322,700	40,497,000	1904-05	51,586,900	448,461,100
1905-06	6,604,400	45,833,200	1905-06	54,428,600	433,138,300
1906-07	6,934,900	50,395,700	1906-07	54,521,600	430,258,000

(*a*) Includes Eastern Bengal up to 1904-05
Note.—The figures for 1906-07 are subject to revision

WHEAT

Province	acres	tons	Province	acres	tons
Panjab			*Bengal (b)*		
1892-93	7,123,300	2,235,611	1892-93	1,559,000	466,000
1893-94	8,265,200	2,560,341	1893-94	1,461,000	459,000
1894-95	8,051,800	2,395,353	1894-95	1,413,000	686,300
1895-96	6,893,400	1,753,766	1895-96	1,427,400	345,600
1896-97	6,584,300	1,872,066	1896-97	1,341,700	386,900
1897-98	8,013,800	2,358,975	1897-98	1,569,500	592,600
1898-99	7,729,200	1,977,777	1898-99	1,582,500	656,400
1899-1900	6,366,500	1,823,182	1899-1900	1,550,300	572,700
1900-01	8,766,400	2,940,602	1900-01	1,498,700	472,600
1901-02	7,227,100	1,846,332	1901-02	1,408,300	391,500
1902-03	6,995,200	2,314,714	1902-03	1,417,000	485,900
1903-04	7,765,700	3,075,161	1903-04	1,508,600	527,800
1904-05	7,712,100	2,855,300	1904-05	1,324,900	433,200
1905-06	8,572,100	3,510,300	1905-06	1,248,300	396,600
1906-07	9,062,100	3,256,000	1906-07	1,402,600	388,700
N.-W. Frontier (a)					
1901-02	796,500	159,279			
1902-03	822,900	234,594			
1903-04	994,062	302,094	*Eastern Bengal*		
1904-05	882,200	267,600			
1905-06	1,024,600	279,700	1904-05	180,700	62,000
1906-07	1,146,400	305,200	1905-06	159,800	50,000
			1906-07	158,700	44,000
United Provinces			*Bombay (including Native States) (c)*		
1892-93	6,307,227	2,354,255	1892-93	2,475,000	654,000
1893-94	6,674,889	1,854,695	1893-94	2,525,000	762,000
1894-95	6,333,688	1,469,996	1894-95	2,678,665	744,961
1895-96	5,177,261	1,591,294	1895-96	2,288,838	454,865
1896-97	3,931,710	1,850,914	1896-97	1,446,741	288,002
1897-98	5,985,146	2,249,633	1897-98	2,004,832	627,914
1898-99	6,348,688	2,277,414	1898-99	2,470,998	737,385
1899-1900	6,202,826	2,410,052	1899-1900	1,157,077	99,408
1900-01	6,790,440	2,384,605	1900-01	1,433,810	298,479
1901-02	6,461,729	2,401,940	1901-02	1,510,459	179,034
1902-03	6,909,549	2,972,497	1902-03	1,797,245	532,601
1903-04	7,788,753	3,230,018	1903-04	2,174,076	560,279
1904-05	7,706,500	1,897,000	1904-05	2,260,900	356,600
1905-06	6,478,900	2,428,700	1905-06	1,347,200	275,100
1906-07	7,039,100	2,164,500	1906-07	1,596,200	328,200
Central Provinces			*Berar*		
1892-93	4,197,000	762,000	1892-93	985,000	166,395
1893-94	3,936,000	575,000	1893-94	928,000	170,893
1894-95	3,393,348	502,275	1894-95	889,326	150,232
1895-96	2,714,454	368,038	1895-96	747,025	103,084
1896-97	1,969,623	332,645	1896-97	381,425	23,413
1897-98	2,171,714	543,095	1897-98	390,378	41,983
1898-99	2,505,299	456,169	1898-99	436,362	53,571
1899-1900	1,633,070	201,803	1899-1900	17,910	414
1900-01	2,055,736	440,909	1900-01	243,554	29,900
1901-02	2,620,138	571,040	1901-02	280,085	34,385
1902-03	2,284,908	666,589	1902-03	216,955	34,625
1903-04	2,921,161	751,388	1903-04	452,663	70,052
1904-05	3,068,500	751,900	1904-05	428,600	80,000
1905-06	3,019,500	773,700	1905-06	424,300	60,700
1906-07	3,272,300	834,300	1906-07	417,500	70,400

(*a*) Constituted in 1901 out of the Panjab
(*b*) Includes Eastern Bengal up to 1903-04
(*c*) Includes the State of Baroda also
Note.—The figures for 1906-07 are subject to revision

WHEAT—*continued*

Province	acres	tons	Province	acres	tons
Sind (including Native States)			*Hyderabad (b)*		
1892-93	604,000	204,000	1892-93	1,262,506	97,315
1893-94	531,000	161,000	1893-94	1,162,503	109,234
1894-95	673,251	215,361	1894-95	1,412,562	69,413
1895-96	315,559	71,683	1895-96	1,454,451	85,331
1896-97	406,752	116,470	1896-97	772,990	18,585
1897-98	591,621	177,160	1897-98	1,003,175	30,139
1898-99	369,706	81,231	1898-99	1,113,431	33,098
1899-1900	364,522	68,226	1899-1900	339,136	1,538
1900-01	479,487	123,160	1900-01	636,247	12,279
1901-02	534,004	109,009	1901-02	603,182	38,853
1902-03	331,608	75,987	1902-03	614,092	53,724
1903-04	586,895	202,171	1903-04	1,134,769	100,535
1904-05	522,700	126,100	1904-05	1,126,600	89,700
1905-06	628,100	196,200	1905-06	934,500	41,800
1906-07	623,600	176,600	1906-07	1,039,500	58,000
Rajputana			*Mysore*		
1892-93	1,604,000	431,000	1892-93	2,640	189
1893-94	1,646,000	389,000	1893-94	(c)	(c)
1894-95	1,529,146	368,168	1894-95	4,534	304
1895-96	1,306,868	315,573	1895-96	5,456	363
1896-97	1,374,346	293,932	1896-97	3,871	413
1897-98	1,302,233	307,062	1897-98	4,363	381
1898-99	1,196,014	276,388	1898-99	4,029	492
1899-1900	360,733	79,289	1899-1900	2,758	254
1900-01	713,290	170,682	1900-01	2,556	197
1901-02	541,834	103,869	1901-02	3,714	256
1902-03	818,399	190,841	1902-03	5,123	531
1903-04	1,125,277	297,162	1903-04	5,718	630
1904-05	1,023,800	189,000	1904-05	5,300	440
1905-06	665,600	136,600	1905-06	2,400	140
1906-07	830,400	181,700	1906-07	4,600	440
Central India			*Total*		
1892-93 (a)	1,639,485	278,340	1892-93	27,759,158	7,649,105
1893-94 (a)	1,537,143	227,819	1893-94	28,716,735	7,268,982
1894-95	2,042,531	396,567	1894-95	28,421,851	6,998,930
1895-96	1,740,608	290,745	1895-96	24,071,320	5,380,342
1896-97	1,366,269	179,949	1896-97	20,579,727	5,363,289
1897-98	1,501,013	279,492	1897-98	24,537,775	7,208,384
1898-99	1,613,851	287,749	1898-99	25,370,078	6,837,674
1899-1900	692,950	100,276	1899-1900	18,687,782	5,357,142
1900-01	1,244,330	220,116	1900-01	23,864,550	7,093,529
1901-02	1,459,116	255,027	1901-02	23,446,161	6,090,524
1902-03	1,182,298	408,343	1902-03	23,395,277	7,971,446
1903-04	1,956,069	523,855	1903-04	28,413,743	9,641,145
1904-05	2,227,400	473,200	1904-05	28,470,200	7,582,040
1905-06	1,852,100	420,600	1905-06	26,357,400	8,579,140
1906-07	2,395,900	639,800	1906-07	29,488,900	8,447,840

(a) Incomplete

(b) The figures for the years previous to 1902-03 exclude *jagir* areas

(c) No information

Note.—The figures for 1906-07 are subject to revision

COTTON

Province	acres	bales of 400 lb
Bombay (including Native States) (a)		
1892-93	5,286,411	1,044,928
1893-94	5,910,856	1,023,480
1894-95	5,292,717	880,240
1895-96	5,303,598	1,029,455
1896-97	5,033,549	827,819
1897-98	4,751,103	948,514
1898-99	5,098,145	1,232,861
1899-1900	3,095,206	(b)81,647
1900-01	4,240,140	759,096
1901-02	4,394,796	567,386
1902-03	4,786,657	943,327
1903-04	5,702,000	1,059,000
1904-05	5,955,000	796,000
1905-06	6,665,000	1,198,000
1906-07	7,213,000	1,740,000
Berar (c)		
1892-93	2,186,600	262,879
1893-94	2,184,800	291,597
1894-95	2,102,956	255,628
1895-96	2,071,856	451,230
1896-97	2,306,870	335,576
1897-98	2,150,329	439,980
1898-99	2,476,306	617,222
1899-1900	1,983,602	104,693
1900-01	2,521,651	730,962
1901-02	2,689,201	612,344
1902-03	2,765,635	710,068
1903-04	2,851,000	486,000
1904-05	3,069,000	755,000
1905-06	3,192,000	475,000
1906-07	3,346,000	553,000
Madras (d)		
1892-93	1,326,200	103,600
1893-94	1,724,000	121,200
1894-95	1,521,500	106,980
1895-96	1,623,900	120,524
1896-97	1,395,400	104,655
1897-98	1,509,100	118,876
1898-99	1,321,700	127,670
1899-1900	1,382,700	101,440
1900-01	1,373,300	118,320
1901-02	1,351,200	130,130
1902-03	1,580,900	167,109
1903-04	1,665,000	175,000
1904-05	1,755,000	132,000
1905-06	1,597,000	145,000
1906-07	1,544,000	157,000

Province	acres	bales of 400 lb
Hyderabad (e)		
1892-93	1,384,450	168,004
1893-94	1,456,283	147,199
1894-95	1,611,912	117,277
1895-96	1,492,768	173,283
1896-97	1,558,296	137,152
1897-98	1,653,669	163,449
1898-99	1,738,379	222,302
1899-1900	1,292,329	91,975
1900-01	1,698,836	288,570
1901-02	1,689,139	300,301
1902-03	2,359,130	280,267
1903-04	2,661,000	275,000
1904-05	2,731,000	330,000
1905-06	2,537,000	303,000
1906-07	3,480,000	430,000
United Provinces		
1892-93	837,892	161,881
1893-94	1,069,307	296,643
1894-95	1,214,747	198,333
1895-96	1,060,905	280,414
1896-97	1,150,069	260,521
1897-98	919,671	225,478
1898-99	933,395	261,304
1899-1900	996,673	227,787
1900-01	1,046,176	294,169
1901-02	1,153,870	368,638
1902-03	1,239,131	327,728
1903-04	841,000	184,000
1904-05	1,201,000	368,000
1905-06	1,372,000	394,000
1906-07	1,489,000	638,000
Panjab (f)		
1892-93	948,300	200,888
1893-94	1,124,500	231,997
1894-95	1,161,200	241,667
1895-96	1,176,700	204,806
1896-97	1,128,400	223,947
1897-98	788,600	166,707
1898-99	988,400	138,926
1899-1900	1,215,400	205,203
1900-01	1,080,200	219,646
1901-02	1,026,800	213,466
1902-03	1,193,600	239,005
1903-04	1,205,100	261,241
1904-05	1,698,000	403,050
1905-06	2,020,000	192,000
1906-07	1,408,000	357,000
N.-W. Frontier (g)		
1901-02	30,400	6,759
1902-03	27,400	7,420
1903-04	35,900	8,424
1904-05	49,000	10,000
1905-06	59,000	13,000
1906-07	61,000	13,000

(*a*) Includes the State of Baroda also

(*b*) The estimate for the year is too low, as the mill consumption for the year ending the 30th June and the net exports for the year ending the 30th September were 605,000 bales. For both the preceding and the following years the trade figures are however lower than the estimates, so that for the 3 years 1898—1901 the production would seem to be understated only by 109,000 bales. In this calculation the excess of the exports from the districts of the North and East Deccan over their reported production, which averages 208,000 bales in the twelve years 1891—1903, has been taken to represent imports by road into the Presidency from the neighbouring Native States

(*c*) The figures of production for Berar for the years previous to 1903-04 represent the mill consumption for the year ending the 30th June and the exports for the year ending the 30th September, as the provincial estimates of the outturn were extremely defective

(*d*) The estimates for Madras have hitherto excluded the *zamindari* tracts where a large amount of cotton is cultivated. No reliable statistics are available for these areas, but it was roughly estimated in 1901-02 that that season's yield which was taken at two-thirds of the normal, would be about 52,250 bales

(*e*) The figures for the years previous to 1902-03 exclude *jagir* areas

(*f*) Including certain Native States from 1904-05

(*g*) Constituted in 1901 out of the Panjab

Note.—The figures for 1906-07 are subject to revision

COTTON—*continued*

Province	acres	bales of 400 lb
Central Provinces		
1892-93	652,200	85,900
1893-94	690,700	79,600
1894-95	601,984	81,196
1895-96	541,087	105,940
1896-97 (*a*)	718,186	86,950
1897-98	668,847	118,994
1898-99	668,522	165,169
1899-1900	712,836	(*b*) 117,050
1900-01	1,004,812	(*b*) 268,958
1901-02	981,342	267,737
1902-03	1,136,431	260,798
1903-04	1,293,000	274,000
1904-05	1,484,000	474,000
1905-06	1,657,000	343,000
1906-07	1,506,000	329,000
Rajputana		
1892-93	500,400	133,300
1893-94 (*c*)	617,600	171,700
1894-95	619,362	184,696
1895-96	514,854	150,862
1896-97	549,236	145,492
1897-98	542,435	137,669
1898-99	476,604	117,743
1899-1900	325,033	44,161
1900-01	369,384	104,390
1901-02	281,934	87,858
1902-03	456,503	164,142
1903-04	395,000	113,000
1904-05	469,000	186,000
1905-06	291,000	61,000
1906-07	428,000	176,000
Central India		
1893-94 (*d*)	295,300	31,900
1894-95	512,936	38,000
1895-96	420,239	49,500
1896-97	522,683	45,900
1897-98	417,456	60,600
1898-99	471,408	46,800
1899-1900	479,565	23,100
1900-01	542,673	63,900
1901-02	529,094	72,200
1902-03	591,006	115,878
1903-04	772,000	125,000
1904-05	846,000	136,000
1905-06	979,000	130,000
1906-07	1,177,000	227,000
Sind (including Native States)		
1892-93	69,754	37,784
1893-94	115,810	75,081
1894-95	113,589	55,141
1895-96	111,855	51,018
1896-97	123,706	56,694
1897-98	108,227	40,176
1898-99	92,312	39,712
1899-1900	92,069	20,507
1900-01	84,560	43,031
1901-02	129,409	72,553
1902-03	195,486	110,808
1903-04	209,000	115,000
1904-05	221,000	97,000
1905-06	283,000	84,000
1906-07	245,000	155,000

Province	acres	bales of 400 lb
Burma		
1898-99	167,821	—
1899-1900	148,563	32,900
1900-01	141,718	21,077
1901-02	130,610	13,125
1902-03	148,867	21,114
1903-04	165,000	27,000
1904-05	189,000	39,000
1905-06	183,000	35,000
1906-07	186,000	35,000
Bengal (*e*)		
1892-93	229,900	73,612
1893-94	215,000	59,428
1894-95	206,200	63,871
1895-96	197,900	53,356
1896-97	157,100	40,184
1897-98	174,000	52,590
1898-99	167,900	45,560
1899-1900	160,600	39,705
1900-01	127,700	41,262
1901-02	118,500	32,094
1902-03	100,300	29,366
1903-04	96,000	28,000
1904-05	78,000	20,000
1905-06	71,000	16,000
1906-07	75,000	16,000
Eastern Bengal and Assam		
1903-04 (*f*)	31,000	12,000
1904-05	50,000	17,000
1905-06	61,000	17,000
1906-07	57,000	14,000
Mysore		
1903-04	70,000	13,000
1904-05	71,000	5,000
1905-06	76,000	5,000
1906-07	89,000	10,000
Ajmer-Merwara		
1903-04	33,000	14,000
1904-05	52,000	53,000
1905-06	29,000	15,000
1906-07	40,000	58,000

Total

	Acres	Outturn as shown above (in bales of 400 lb)	Net exports and mill consumption (in bales of 400 lb) (*g*)
1892-93	13,422,107	2,272,716	2,318,028
1893-94	15,404,156	2,529,325	2,556,537
1894-95	14,959,103	2,223,029	2,239,019
1895-96	14,515,662	2,670,388	2,882,042
1896-97	14,643,495	2,264,890	2,651,597
1897-98	13,683,437	2,473,033	2,653,710
1898-99	14,602,892	2,915,269	3,140,130
1899-1900	11,884,576	1,090,168	2,093,521
1900-01	14,231,150	2,953,381	2,703,648
1901-02	14,506,295	2,744,591	3,310,733
1902-03	16,581,046	3,367,030	3,750,549
1903-04	18,025,000	3,168,000	3,679,643
1904-05	19,918,000	3,826,000	3,618,000
1905-06	21,072,000	3,426,000	3,967,000
1906-07	22,344,000	4,908,000	4,189,000

(*a*) Exclusive of zamindári area in Raipur, Bilaspur, and Sambalpur

(*b*) Represent exports and consumption of the years ending the 30th September as the reported estimates of the yield were imperfect

(*c*) Exclusive of Tonk

(*d*) Exclusive of the greater part of the Bhopal Agency

(*e*) Includes Eastern Bengal up to 1903-04

(*f*) Assam only

(*g*) For the years up to 1905-06 the exports are for the year ending the 30th September and the mill consumption for the year ending the 30th June. For 1906-07 both the exports and the mill consumption are for the year ending 30th June. No reliable information exists as to the annual consumption outside the mills but a million cwt or 280,000 bales is probably below the mark. The deficiency in the total of the estimates compared with the quantities exported and consumed which is especially noticeable in the year 1899-1900 cannot be satisfactorily allocated, but it is probable that the remaining errors are chiefly in the estimates of Native States

Note.—The figures for 1906-07 are subject to revision

LINSEED

Province	acres	tons
Bengal (*a*)		
1892-93	805,700	121,900
1893-94	777,100	131,800
1894-95	732,900	120,900
1895-96	712,700	95,600
1896-97	587,800	84,900
1897-98	662,800	125,400
1898-99	677,900	144,700
1899-1900	653,200	126,700
1900-01	806,700	133,400
1901-02	783,800	110,600
1902-03	864,200	160,000
1903-04	922,800	168,800
1904-05	730,400	96,600
1905-06	726,500	110,400
1906-07	671,800	94,800
Eastern Bengal		
1904-05	99,000	17,500
1905-06	103,000	17,300
1906-07	87,800	12,600
Central Provinces		
1892-93	1,384,000	134,000
1893-94	1,788,000	132,000
1894-95	1,498,672	42,532
1895-96	730,750	45,253
1896-97	527,421	19,391
1897-98	683,728	69,783
1898-99	838,255	58,955
1899-1900	306,933	4,319
1900-01	495,165	20,652
1901-02	609,596	32,786
1902-03	494,137	42,352
1903-04	808,566	77,567
1904-05	825,700	67,300
1905-06	815,400	69,600
1906-07	1,051,700	96,000
United Provinces		
1892-93 (*b*) Pure	481,000	74,000
1892-93 (*b*) Mixed	604,000	94,000
1893-94 Pure	742,000	101,000
1893-94 Mixed	503,000	65,000
1894-95 Pure	753,857	69,165
1894-95 Mixed	603,000	53,899
1895-96 Pure	403,565	55,796
1895-96 Mixed	560,000	82,462
1896-97 Pure	235,166	40,036
1896-97 Mixed	345,000	58,504
1897-98 Pure	519,461	110,619
1897-98 Mixed	425,000	90,976
1898-99 Pure	438,728	87,854
1898-99 Mixed	445,000	91,284
1899-1900 Pure	357,880	73,267
1899-1900 Mixed	409,000	89,464
1900-01 Pure	448,206	75,780
1900-01 Mixed	466,000	79,000
1901-02 Pure	373,092	75,876
1901-02 Mixed	498,000	100,113
1902-03 Pure	536,044	114,595
1902-03 Mixed	621,000	122,000
1903-04 Pure	782,302	144,736
1903-04 Mixed	592,000	105,000
1904-05 Pure	634,500	51,800
1904-05 Mixed	647,000	49,000
1905-06 Pure	210,900	32,800
1905-06 Mixed	567,000	88,000
1906-07 Pure	315,000	56,300
1906-07 Mixed	633,000	113,000

Province	acres	tons
Hyderabad (*c*)		
1896-97	324,455	11,355
1897-98	438,030	15,141
1898-99	426,045	13,443
1899-1900	171,970	1,506
1900-01	371,983	8,774
1901-02	370,376	18,403
1902-03	378,559	22,343
1903-04	529,214	25,290
1904-05	775,800	33,500
1905-06	604,500	24,700
1906-07	664,300	32,600
Berar (*d*)		
1892-93	354,000	21,000
1893-94	578,000	29,000
1894-95	385,563	13,893
1895-96	500,650	27,497
1896-97	188,142	4,576
1897-98	180,472	10,405
1898-99	171,085	7,683
1899-1900	21,564	—
1900-01	154,716	5,382
1901-02	185,738	9,606
1902-03	120,753	7,289
1903-04	184 823	18,617
1904-05	134,000	13,200
1905-06	96,700	7,700
1906-07	93,500	8,700
Bombay (including Native States) (*e*)		
1892-93	233,000	25,000
1893-94	402,000	52,000
1894-95	410,692	25,308
1895-96	606,428	63,261
1896-97	157,763	2,221
1897-98	223,396	23,646
1898-99	277,462	23,975
1899-1900	137,356	428
1900-01	141,221	3,036
1901-02	224,002	4,537
1902-03	198,544	12,989
1903-04	381,374	31,822
1904-05	548,000	18,500
1905 06	154,800	2,600
1906-07	144,200	5,900
Rest of India		
1892-93	567,000	114,000
1893-94	567,000	114,000
Total		
1892-93 Pure	3,824,700	489,900
1892-93 Mixed	604,000	94,000
1893-94 Pure	4,854,100	559,800
1893-94 Mixed	503,000	65,000
1894-95 Pure	3,781,684	271,798
1894-95 Mixed	603,000	53,899
1895-96 Pure	2,954,093	287,407
1895-96 Mixed	560,000	82,462
1896-97 Pure	2,020,747	162,479
1896-97 Mixed	345,000	58,540
1897-98 Pure	2,707,887	354,994
1897-98 Mixed	425,000	90,976
1898-99 Pure	2,829,475	336,610
1898-99 Mixed	445,000	91,284
1899-1900 Pure	1,648,903	206,220
1899-1900 Mixed	409,000	89,464
1900-01 Pure	2,417,991	247,024
1900-01 Mixed	466,000	79,000
1901-02 Pure	2,546,604	251,808
1901-02 Mixed	498.000	100,113
1902-03 Pure	2,592,237	359,568
1902-03 Mixed	621,000	122,000
1903-04 Pure	3,609,079	466,832
1903-04 Mixed	592,000	105,000
1904-05 Pure	3,747,400	298,400
1904-05 Mixed	647,000	49,000
1905-06 Pure	2,701,800	265,200
1905-06 Mixed	567,000	88,000
1906-07 Pure	3,028,900	306,900
1906-07 Mixed	633,000	113,000

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*c*) The figures for the years previous to 1902-03 exclude *jagir* areas

(*d*) The estimates of yield for the years previous to 1903-04 are defective, being base on incorrect data

(*e*) Includes the State of Baroda also

Note.—The figures for 1906-07 are subject to revision

RAPE AND MUSTARD

Province	acres	tons
Bengal (a)		
1892-93	2,256,000	372,300
1893-94	2,209,100	334,200
1894-95	2,221,600	343,700
1895-96	2,148,400	332,400
1896-97	2,003,900	312,300
1897-98	2,239,700	438,600
1898-99	2,167,200	448,200
1899-1900	2,032,900	371,900
1900-01	2,043,200	337,800
1901-02	1,922,400	372,900
1902-03	1,914,100	341,700
1903-04	1,973,900	365,500
1904-05	782,700	125,900
1905-06	767,200	118,400
1906-07	818,100	138,800
Eastern Bengal		
1904-05	1,194,800	234,400
1905-06	1,094,500	168,900
1906-07	1,207,600	218,300
Panjab		
1892-93	849,900	134,720
1893-94	899,900	112,016
1894-95	802,600	97,224
1895-96	475,100	50,602
1896-97	515,300	52,756
1897-98	1,112,300	142,115
1898-99	582,600	56,041
1899-1900	397,500	26,761
1900-01	1,638,400	248,022
1901-02	665,800	64,361
1902-03	936,100	91,857
1903-04	1,088,900	159,236
1904-05	1,210,800	119,300
1905-06	1,614,200	183,000
1906-07	1,402,400	172,300
Assam		
1892-93	170,000	45,000
1893-94	168,000	34,000
1894-95	134,399	20,249
1895-96	182,640	36,388
1896-97	178,408	38,853
1897-98	167,268	31,878
1898-99	134,856	21,891
1899-1900	119,110	21,789
1900-01	126,309	21,140
1901-02	157,671	28,294
1902-03	174,719	27,905
1903-04	172,039	29,098
1904-05	157,700	28,000
1905-06	164,400	30,200
1906-07	171,100	32,000
United Provinces		
1892-93 (b) Pure	126,000	27,000
1892-93 (b) Mixed	1,731,000	367,000
1893-94 Pure	131,000	21,000
1893-94 Mixed	1,557,000	240,000
1894-95 Pure	109,347	16,497
1894-95 Mixed	1,613,000	216,050
1895-96 Pure	95,678	26,554
1895-96 Mixed	1,290,000	359,979
1896-97 Pure	83,372	18,524
1896-97 Mixed	1,526,000	340,602
1897-98 Pure	88,822	28,417
1897-98 Mixed	1,459,000	436,451
1898-99 Pure	92,679	22,884
1898-99 Mixed	1,509,000	410,983
1899-1900 Pure	76,180	21,186
1899-1900 Mixed	1,381,000	425,471
1900-01 Pure	94,130	24,060
1900-01 Mixed	1,449,000	372,000
1901-02 Pure	120,436	36,841
1901-02 Mixed	1,461,000	430,617
1902-03 Pure	140,296	31,320
1902-03 Mixed	2,335,000	516,000
1903-04 Pure	131,926	29,643
1903-04 Mixed	2,429,000	542,000
1904-05 Pure	140,100	18,800
1904-05 Mixed	2,509,000	336,000
1905-06 Pure	154,700	30,000
1905-06 Mixed	2,026,000	398,000
1906-07 Pure	153,400	30,000
1906-07 Mixed	2,210,000	424,000

Province	acres	tons
Sind (including Native States)		
1892-93	140,000	20,000
1893-94	111,000	17,000
1894-95	222,413	24,852
1895-96	53,664	8,503
1896-97	72,093	11,101
1897-98	154,248	27,277
1898-99	70,766	8,601
1899-1900	64,637	6,193
1900-01	119,596	12,304
1901-02	113,140	12,049
1902-03	78,606	7,813
1903-04	85,525	16,550
1904-05	60,100	2,500
1905-06	64,200	11,500
1906-07	84,200	11,800
N. W. Frontier (c)		
1901-02	73,700	8,723
1902-03	110,800	13,151
1903-04	130,231	17,127
1904-05	55,700	8,300
1905-06	85,500	12,200
1906-07	218,800	19,400
Bombay (including Native States)		
1892-93	65,000	13,000
1893-94	89,000	18,000
1894-95	91,822	18,509
1895-96	49,431	7,617
1896-97	55,615	8,207
1897-98	56,830	14,380
1898-99	53,091	9,795
1899-1900	2,536	111
1900-01	39,134	6,613
1901-02	17,438	1,721
1902-03	54,625	7,891
1903-04	36,007	5,786
1904-05	25,100	3,000
1905-06	43,800	9,300
1906-07	61,400	14,100
Hyderabad (d)		
1896-97	1,994	73
1897-98	3,828	140
1898-99	8,796	286
1899-1900	905	6
1900-01	16,597	286
1901-02	12,077	146
1902-03	12,537	289
1903-04	14,917	266
1904-05	13,000	200
1905-06	14,300	100
1906-07	10,700	200
Rest of India		
1892-93	68,000	10,000
1893-94	68,000	10,000
Total		
1892-93 Pure	3,674,900	622,580
1892-93 Mixed	1,731,000	367,000
1893-94 Pure	3,676,000	546,216
1893-94 Mixed	1,557,000	240,000
1894-95 Pure	3,582,181	521,031
1894-95 Mixed	1,613,000	216,050
1895-96 Pure	3,004,913	462,064
1895-96 Mixed	1,290,000	359,979
1896-97 Pure	2,910,682	441,814
1896-97 Mixed	1,526,000	340,602
1897-98 Pure	3,822,996	682,807
1897-98 Mixed	1,459,000	436,451
1898-99 Pure	3,109,988	567,698
1898-99 Mixed	1,509,000	410,983
1899-1900 Pure	2,693,768	447,946
1899-1900 Mixed	1,381,000	425,471
1900-01 Pure	4,077,366	650,225
1900-01 Mixed	1,449,000	372,000
1901-02 Pure	3,082,662	525,035
1901-02 Mixed	1,461,000	430,617
1902-03 Pure	3,421,883	521,926
1902-03 Mixed	2,335,000	516,000
1903-04 Pure	3,583,445	623,206
1903-04 Mixed	2,429,000	542,000
1904-05 Pure	3,640,000	540,400
1904-05 Mixed	2,509,000	336,000
1905-06 Pure	4,002,800	563,600
1905-06 Mixed	2,026,000	398,000
1906-07 Pure	4,127,700	636,900
1906-07 Mixed	2,210,000	424,000

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*c*) Constituted in 1901 out of the Panjab

(*d*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1906-07 are subject to revision

SESAMUM (til or jinjili)

Province	acres	tons	Province	acres	tons
Madras			*Panjab and N.-W. Frontier (b)*		
1892-93	635,600	46,300	1892-93	204,500	25,900
1893-94	717,500	51,300	1893-94	234,800	25,900
1894-95	613,600	40,700	1894-95	319,200	31,917
1895-96	824,700	54,700	1895-96	189,400	18,772
1896-97	562,800	48,100	1896-97	223,400	21,379
1897-98	826,000	69,000	1897-98	195,400	22,984
1898-99	690,700	68,100	1898-99	252,600	25,350
1899-1900	665,900	45,100	1899-1900	216,400	16,253
1900-01	850,000	68,200	1900-01	218,500	19,077
1901-02	727,700	66,400	1901-02	211,500	17,640
1902-03	782,700	71,700	1902-03	244,000	20,819
1903-04	855,700	78,600	1903-04	246,600	26,143
1904-05	674,200	55,100	1904-05	158,000	16,000
1905-06	723,300	55,000	1905-06	146,300	13,900
1906-07	585,500	48,000	1906-07	94,400	8,600
Bombay (including Native States) (a)			*Sind (including Native States)*		
1892-93	703,500	105,500	1892-93	109,500	10,516
1893-94	668,600	78,900	1893-94	177,740	12,309
1894-95	754,072	100,438	1894-95	191,040	15,892
1895-96	843,039	98,104	1895-96	151,038	12,052
1896-97	770,553	65,600	1896-97	183,873	12,384
1897-98	681,905	103,136	1897-98	154,812	8,260
1898-99	754,327	115,566	1898-99	114,129	8,285
1899-1900	303,148	6,186	1899-1900	158,957	7,323
1900-01	719,642	105,167	1900-01	105,881	4,468
1901-02	862,935	64,421	1901-02	99,693	5,985
1902-03	904,523	177,137	1902-03	118,044	7,602
1903-04	1,128,055	218,219	1903-04	122,496	5,665
1904-05	793,900	52,700	1904-05	83,700	5,300
1905-06	908,100	105,100	1905-06	84,400	6,300
1906-07	1,020,400	182,400	1906-07	62,100	4,700
Central Provinces			*Berar (c)*		
1892-93	503,000	33,000	1892-93	115,100	4,000
1893-94	534,700	31,300	1893-94	85,300	3,200
1894-95	520,099	27,714	1894-95	69,715	2,359
1895-96	569,407	45,243	1895-96	76,155	2,704
1896-97	627,948	43,953	1896-97	103,298	3,515
1897-98	749,491	67,770	1897-98	135,164	6,573
1898-99	634,268	43,475	1898-99	135,483	5,620
1899-1900	1,026,257	62,132	1899-1900	116,089	1,436
1900-01	983,260	82,138	1900-01	149,022	9,554
1901-02	710,641	39,020	1901-02	118,249	2,958
1902-03	1,075,057	96,610	1902-03	138,092	5,402
1903-04	962,296	73,551	1903-04	121,551	11,630
1904-05	779,600	58,900	1904-05	111,500	10,100
1905-06	686,800	57,700	1905-06	106,200	9,200
1906-07	693,700	59,800	1906-07	90,200	9,800

(*a*) Includes the State of Baroda also

(*b*) The figures of both area and yield from 1904-05 relate to Panjab only. the forecast of the sesamum crop of the N. W. F. Province having been discontinued from that year

(*c*) The estimates of yield for the years previous to 1903-04 are defective, being based on incorrect data

Note.—The figures for 1906-07 are subject to revision

SESAMUM—*continued*

Province	acres	tons
***Bengal* (*a*)**		
1894-95	356,200	43,400
1895-96	368,900	36,000
1896-97	332,500	30,800
1897-98	367,500	49,900
1898-99	367,200	52,100
1899-1900	388,200	49,700
1900-01	396,000	45,400
1901-02	411,100	54,900
1902-03	384,800	45,000
1903-04	428,300	58,000
1904-05	283,800	30,800
1905-06	283,200	33,400
1906-07	273,200	36,000
Eastern Bengal		
1904-05	209,900	28,200
1905-06	231,800	28,300
1906-07	221,700	28,300
United Provinces		
1892-93 (*b*) Pure	152,600	14,700
1892-93 (*b*) Mixed	407,000	40,000
1893-94 Pure	200,600	19,700
1893-94 Mixed	509,000	50,000
1894-95 Pure	177,043	15,513
1894-95 Mixed	448,000	40,000
1895-96 Pure	148,833	14,554
1895-96 Mixed	560,000	55,000
1896-97 Pure	177,785	12,222
1896-97 Mixed	672,000	45,000
1897-98 Pure	147,817	14,994
1897-98 Mixed	584,000	60,000
1898-99 Pure	155,178	15,159
1898-99 Mixed	713,000	70,000
1899-1900 Pure	203,604	22,743
1899-1900 Mixed	517,000	60,000
1900-01 Pure	238,154	28,431
1900-01 Mixed	622,000	75,000
1901-02 Pure	252,870	23,226
1901-02 Mixed	611,000	60,000
1902-03 Pure	316,150	35,279
1902-03 Mixed	717,000	80,000
1903-04 Pure	374,559	34,345
1903-04 Mixed	747,000	70,000
1904-05 Pure	304,100	13,900
1904-05 Mixed	600,000	35,000
1905-06 Pure	278,200	17,500
1905-06 Mixed	700,000	45,000
1906-07 Pure	309,200	36,200
1906-07 Mixed	775,000	90,000

Province	acres	tons
***Hyderabad* (*c*)**		
1896-97	387,041	13,005
1897-98	404,020	13,200
1898-99	426,740	14,463
1899-1900	237,512	2,383
1900-01	392,032	10,421
1901-02	377,023	21,660
1902-03	472,282	34,038
1903-04	601,607	33,325
1904-05	780,000	29,400
1905-06	465,600	18,400
1906-07	493,700	27,300
Total		
1892-93 Pure	2,423,800	239,916
1892-93 Mixed	407,000	40,000
1893-94 Pure	2,619,240	322,609
1893-94 Mixed	509,000	50,000
1894-95 Pure	3,000,969	277,933
1894-95 Mixed	448,000	40,000
1895-96 Pure	3,171,472	282,129
1895-96 Mixed	560,000	55,000
1896-97 Pure	3,369,198	250,958
1896-97 Mixed	672,000	45,000
1897-98 Pure	3,662,109	355,817
1897-98 Mixed	584,000	60,006
1898-99 Pure	3,530,625	348,118
1898-99 Mixed	713,000	70,000
1899-1900 Pure	3,316,067	213,256
1899-1900 Mixed	517,000	60,000
1900-01 Pure	4,052,491	372,856
1900-01 Mixed	622,000	75,000
1901-02 Pure	3,711,711	296,210
1901-02 Mixed	611,000	60,000
1902-03 Pure	4,435,648	493,587
1902-03 Mixed	717,000	80,000
1903-04 Pure	4,838,164	539,478
1903-04 Mixed	747,000	70,000
1904-05 Pure	4,178,700	300,400
1904-05 Mixed	600,000	35,000
1905-06 Pure	3,914,200	344,800
1905-06 Mixed	700,000	45,000
1906-07 Pure	3,844,100	441,100
1906-07 Mixed	775,000	90,000

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*c*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1906-07 are subject to revision

JUTE

Province	acres*	bales of 400 lb	Province	acres	bales of 400 lb
Bengal (*a*)			*Cooch Bihar*		
1892	2,135,100	5,717,400			
1893	2,222,600	5,001,700	1903	23,200	(*e*) 50,000
1894	2,264,300	6,144,300	1904	20,000	(*e*) 36,000
1895	2,242,700	5,551,000	1905	(*f*)	52,800
1896	2,196,600	5,717,000	1906	(*f*)	(*f*)
1897	2,151,600	6,839,000			
1898	1,624,400	5,334,000	*Total*		
1899	1,961,800	5,412,000	1892	2,135,100	
1900	2,093,400	(*b*) 6,526,000	1893	2,222,600	
1901	2,263,800	7,438,000	1894	2,264,300	
1902	2,108,300	6,577,000	1895	2,242,700	
1903	2,213,600	7,241,000	1896	2,196,600	
1904	2,850,000	7,400,000	1897	2,151,600	
1905	569,300	(*c*) 1,550,200	1898	1,624,400	See under Bengal
1906	780,400	1,909,000	1899	1,961,800	
Eastern Bengal and Assam (*d*)			1900	2,093,400	
			1901	2,263,800	
1902	34,400	(*e*) 48,000	1902	2,142,700	
1903	38,250	(*e*) 90,000	1903	2,275,050	
1904	29,700	(*e*) 46,000	1904	2,899,700	
1905	2,559,000	6,602,200	1905	3,128,300	(*g*) 8,205,200
1906	2,664,900	6,827,200	1906	3,445,300	(*g*) 8,736,200

INDIGO

Province	acres	cwt	Province	acres	cwt
Bengal			*Madras*—contd.		
1892-93	645,950	92,006	1898-99	210,600	30,320
1893-94	648,928	67,285	1899-1900	249,000	33,340
1894-95	629,100	104,485	1900-01	251,900	46,100
1895-96	552,700	73,133	1901-02	239,400	38,480
1896-97	582,200	56,671	1902-03	212,200	40,260
1897-98	529,500	50,415	1903-04	241,900	45,900
1898-99	512,100	74,321	1904-05	126,300	16,760
1899-1900	449,200	44,996	1905-06	113,900	17,300
1900-01	360,600	47,707	1906-07	212,300	37,900
1901-02	311,200	41,820			
1902-03	255,500	21,924	*Panjab*		
1903-04	249,700	31,895	1892-93	65,300	10,085
1904-05	223,100	24,300	1893-94	110,700	15,946
1905-06	161,500	14,100	1894-95	124,200	24,005
1906-07	137,800	16,100	1895-96	104,300	20,325
			1896-97	135,400	20,549
			1897-98	108,800	17,392
United Provinces			1898-99	47,200	8,263
			1899-1900	97,300	15,577
1892-93	206,516	26,545	1900-01	115,700	22,693
1893-94	349,980	38,106	1901-02	71,600	13,533
1894-95	420,242	41,524	1902-03	42,000	7,016
1895-96	342,102	33,786	1903-04	74,200	12,184
1896-97	436,601	40,713	1904-05	53,000	9,900
1897-98	376,899	37,545	1905-06	67,500	10,800
1898-99	240,418	26,416	1906-07	62,300	10,600
1899-1900	231,400	17,977			
1900-01	262,175	31,529	*Total*		
1901-02	168,990	18,986			
1902-03	135,811	10,007	1892-93	1,218,766	179,056
1903-04	140,834	12,823	1893-94	1,552,008	179,437
1904-05	74,500	8,000	1894-95	1,688,042	237,494
1905-06	40,700	4,300	1895-96	1,414,002	190,924
1906-07	40,400	5,100	1896-97	1,608,901	168,673
			1897-98	1,339,099	166,812
			1898-99	1,010,318	139,320
Madras			1899-1900	1,026,900	111,890
			1900-01	990,375	148,029
1892-93	301,000	50,420	1901-02	791,190	112,819
1893-94	442,400	58,100	1902-03	645,511	79,207
1894-95	514,500	67,480	1903-04	706,634	102,802
1895-96	414,900	63,680	1904-05	476,900	58,900
1896-97	454,700	50,740	1905-06	383,600	46,500
1897-98	323,900	61,460	1906-07	452,800	69,700

* The estimates of the area under jute in Bengal have been based on very uncertain data, but special efforts were made in 1904 to obtain a correct estimate

(*a*) Including Eastern Bengal up to 1904

(*b*) Revised according to the statistics of trade and consumption, and including the production of Assam, Cooch Bihar, and Nepal (*c*) Including 64,300 bales for Nepal

(*d*) The figures up to 1904 relate to Assam only, the figures for Eastern Bengal for those years being included under Bengal

(*e*) Included in the production of Bengal for these years. (*f*) Not reported

(*g*) Excluding the figures for Upper India and Madras. In 1905, 26,269 bales came from Upper India *vid* East Indian Railway, and 4,257 bales from Madras *vid* Bengal Nagpur Railway

Note.—The figures for 1906-07 are subject to revision

GROUNDNUT

Province	acres	tons (*a*)	Province	acres	tons
Madras			*Total*		
1895-96	243,400		1895-96	(*d*) 243,400	
1896-97	157,300				(*b*)
1897-98	94,500		1896-97	306,026	
1898-99	116,200				
1899-1900	102,000	(*b*)	1897-98	214,803	55,962
1900-01	229,997				
1901-02	337,600				
1902-03	421,300		1898-99	217,814	70,561
1903-04	384,400				
1904-05	366,400	151,700			
1905-06	393,100	174,500	1899-1900	173,946	9,250
1906-07	507,600	225,400			
			1900-01	294,408	(*e*) 28,631
			1901-02	434,222	63,298
Bombay (including Native States)					
			1902-03	491,155	61,854
1896-97	148,726	(*b*)			
1897-98	120,303	(*c*) 55,962			
1898-99	101,614	70,561	1903-04	474,193	94,419
1899-1900	71,946	9,250			
1900-01	64,411	28,631	1904-05	459,700	214,900
1901-02	96,622	63,298			
1902-03	69,855	61,854			
1903-04	89,793	94,409	1905-06	485,900	211,200
1904-05	93,300	63,200			
1905-06	92,800	39,700			
1906-07	93,800	73,600	1906-07	601,400	299,900

SUGARCANE

Province	acres	tons	Province	acres	tons
Bengal (*f*)			*Madras*		
1898-99	861,100	871,435			
1899-1900	884,400	817,185	1898-99	45,500	
1900-01	801,800	811,420	1899-1900	54,400	(*b*)
1901-02	661,200	676,410	1900-01	55,400	
1902-03	673,500	681,580	1901-02	51,100	109,400
1903-04	632,400	653,900	1902-03	46,500	93,400
1904-05	633,000	634,700	1903-04	44,300	83,700
1905-06	421,600	426,700	1904-05	47,800	90,000
1906-07	423,500	419,200	1905-06	60,700	114,500
Eastern Bengal and Assam			1906-07	52,500	100,400
1905-06	201,500	188,500			
1906-07	199,900	193,500	*N.-W. Frontier*		
United Provinces			1901-02	23,900	21,339
1898-99	1,227,881	1,204,799	1902-03	26,652	23,660
1899-1900	1,259,070	838,885	1903-04	27,090	24,620
1900-01	1,212,456	1,193,214	1904-05	25,900	22,600
1901-02	1,228,691	976,222	1905-06	25,600	22,800
1902-03	1,151,777	904,132	1906-07	28,600	32,800
1903-04	1,089,602	877,102			
1904-05	1,212,600	1,183,400			
1905-06	1,228,900	884,000			
1906-07	1,386,700	1,264,600	*Total*		
Panjab					
1898-99	351,200	(*b*)	1898-99	2,485,681	2,076,234
1899-1900	343,600	203,935	1899-1900 (*g*)	2,541,470	1,860,005
1900-01	334,500	272,114	1900-01	2,404,156	2,276,748
1901-02	351,500	239,105	1901-02	2,316,391	2,022,476
1902-03	309,400	204,012	1902-03	2,207,829	1,906,784
1903-04	321,200	232,664	1903-04	2,114,592	1,871,986
1904-05	325,500	238,300	1904-05	2,244,800	2,169,000
1905-06	172,700	89,000	1905-06	2,111,000	1,725,500
1906-07	257,600	212,800	1906-07	2,348,800	2,223,400

(*a*) The average outturn per acre in Madras has been provisionally fixed at 1,344 lb of nuts in shell. In Bombay where groundnut is mainly grown with the help of irrigation a good average crop is 3,200 lb.

(*b*) No information (*c*) Excluding Native States (*d*) Madras only (*e*) In Bombay only

(*g*) Incomplete (*f*) Includes Eastern Bengal up to 1904-05

Note.—The figures for 1906-07 are subject to revision

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Tenth Issue]

COMMERCIAL INTELLIGENCE DEPARTMENT
INDIA

AREA AND YIELD

OF CERTAIN

PRINCIPAL CROPS IN INDIA

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO

SUGARCANE

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Vol.

BOMBAY BRANCH
OF THE
Royal Asiatic Society.

PREFACE TO THE TENTH ISSUE.

In previous years the record of the conditions prevailing at the time of forecast in each province was summarized for the years dealt with in the tables, and prefixed to them; but this form of presentation was both cumbrous and inconvenient, as merchants wishing to discover the causes of marked fluctuations in area or yield might take some time to discover the summary with the particular crop, particular province, and particular season in which they were interested. Considerations of space also rendered it necessary to confine the figures given to fifteen years instead of giving a complete series from 1891-92 as in the issues prior to 1907. In the present volume accordingly the summaries have been omitted, and in their stead a new column opened in the tables of area and outturn epitomizing in a phrase the character of the season—thus enabling the reader to see at a glance the bearing of one upon the other. The interest of the publication has, it is hoped, been further enhanced by the insertion of the prefatory notes hitherto exclusively appended to Table IX in the volume of Agricultural Statistics—explaining in detail for each province how the forecasts are prepared.

C. W. E. COTTON,

Officiating Director-General of Commercial Intelligence

November 16, 1908

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

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AREA AND YIELD

OF CERTAIN

PRINCIPAL CROPS IN INDIA

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

GENERAL NOTES

In the course of each year periodical estimates of the area and yield of certain crops are compiled from local returns and issued by this Department.

The general practice is to issue a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two, but for both cotton and sesamum, of which there are early and late varieties, four reports are issued.

The estimates state the area actually sown, whether the crop comes to maturity or not, but fields which have been sown with other crops, owing to the failure of the first sowings, are not entered.

The areas covered by the several crops in a mixed field are estimated in various ways in the different provinces and the estimates are based on formulæ prescribed by the provincial authorities.

The estimates are not made for the whole of India and they are necessarily, in the most favourable circumstances, only approximations to the truth. The very complete agricultural records in most of the provinces in connection with the assessment of the land revenue render it possible in many cases to state with great exactness the area sown with each crop; but an equally important factor in determining the outturn, namely, the average yield per acre, has to be estimated, and exactness can be obtained only by the most careful consideration of the classes of soil, the methods of cultivation, and the climatic conditions which depend mainly on the quantity and timeliness of the rainfall in every part of the reporting areas. The quantitative estimates are thus often imperfect and they have generally been too low. The attention recently paid to the estimates of the cotton and wheat crops showed that some of the estimates relating to past years were extremely defective, but measures have been taken which appear already to have effected a substantial improvement. The revision of the estimates which was attempted has not however been entirely successful, for the reason that there are large unregistered movements of cotton across provincial boundaries by road, while the information from some of the Native States is defective and the internal consumption other than that in mills defies accurate computation. A conventional estimate of consumption outside mills has however been made in consultation with the Bombay Cotton Trade Association and included in the figures of net exports and consumption shown at the end of the table relating to cotton. In view of the carrying over of stocks from one year to another it is interesting to calculate the averages on these figures. Estimates of area and production are now received from various areas which were formerly unreported; but the fact that the total estimated outturn continues to fall short of the total of net exports and consumption shows that there is still much room for improvement in the estimates of production.

Attention has also been paid to the improvement of the jute forecast, and the yield for past years, from 1895 to 1904, has been corrected by the statistics of exports and consumption, but the estimates of the area cultivated are based on data, which are still uncertain, although they have recently been improved. Next to those for cotton and jute the estimates of acreage are most complete in respect of wheat. For the other crops, however, the estimates of area apply only to the specified regions where those crops are largely grown, and not to the whole of India. Thus, the rice estimates relate only to Bengal, Eastern Bengal and Assam, Lower Burma, and Madras, and those for sugarcane to Bengal, Eastern Bengal and Assam, Madras, the United Provinces, the Panjab, the North-West Frontier, and Bombay. Again, for the reporting territories the estimates are sometimes imperfect, for, with some exceptions, those tracts have been excluded which have not been accurately surveyed or are held under privileged tenures, and hence do not possess the regular establishments maintained elsewhere for reporting the area placed under each crop. The most serious omission from this cause is in the figures for Madras, which is a large producer of rice, cotton, sesamum, and indigo, but which up to 1906-07 made forecasts only for the raiyatwari villages or about two-thirds of the area of the British districts. The Feudatory States within provincial boundaries are also generally omitted from the forecasts of all the provinces except Bombay and Sind. But for these omissions and a certain element of uncertainty in regard to crops which are grown conjointly or interspersed in the same field, the estimates of area relating to the Panjab, the United Provinces, the Central Provinces, Berar, and Madras may be regarded as fairly exact. The statistics for the British districts of Bombay are also very correct, but in this publication they are combined with the more conjectural figures of the provincial Feudatory States in which a large proportion of the cotton, oilseeds, and wheat is grown. The statistics of area for Bengal and Eastern Bengal which relate to nearly the whole of the

cultivated portion of the province, omitting unimportant Feudatory States, are also conjectural since they consist of estimates which are founded on information of varying degrees of accuracy and which have been verified by cadastral survey in respect of only about 43 per cent for Bengal and 19 per cent for Eastern Bengal.

The statistics for the States of Hyderabad and Mysore and the numerous States in the Central India and Rajputana Agencies rest on data similar to those of British India, and like them mostly refer to tracts in which there exists a reporting agency not equal in efficiency to that of the neighbouring British Provinces. Estimates are also included for some of the revenue-free lands held on privileged tenures.

PROVINCIAL NOTES.

Burma.

Estimates are made for rice and cotton.

The figures for area are obtained from the assessment rolls prepared by revenue surveyors.

The original information about the yield is obtained from township officers, Inspectors of Land Records, and from the more important of the Land Revenue subordinate officers. In this way the estimate of each district is based on the information furnished by some thirty or more persons.

The figures for both area and yield are tabulated by the Superintendent of Land Records and checked by the Deputy Commissioner. The Director of Land Records compares the estimated yield with a standard representing the normal yield which was fixed after an extensive series of experimental crop cuttings by settlement officers.

(Rice) Estimates are made for the fifteen chief rice-producing districts of Lower Burma, namely, Akyab, Kyaukpyu, Hanthawaddy, Pegu, Tharrawaddy, Prome, Ma-ubin, Pyapôn, Bassein, Henzada, Myaungmya, Amherst, Tavoy, Toungoo, and Thatôn. The standard is 32 baskets (of 48lb each) = 1,536lb of unhusked rice to the acre.

(Cotton) Until 1902-03 the estimates for cotton related to the five principal cotton-growing districts, namely, Sagaing, Lower Chindwin, Meiktila, Myingyan, and Thayetmyo. Since that year all the cotton-producing districts have been reported on. Except in districts, where a settlement officer has conducted experiments in crop cutting, it is not possible to estimate accurately the average yield per acre.

Assam.

Estimates are framed for rice, cotton, mustard, jute, and sugarcane. The information is received from district officers, who in their turn obtain figures from mandals in the case of the temporarily-settled areas and from zamindars in the case of the permanently-settled portion of Goalpara. These figures are said to be checked by sub-divisional and district officers, but, except where the district or the sub-divisional officer is himself able to do it, there is no valid check at all, and sometimes figures returned by district officers are more or less inaccurate and inconsistent.

(Rice) The estimates for rice relate to all the plains districts (*i.e.*, excluding the hill tracts). The crop includes the *bhadoi*, *aús*, or autumn rice, and the *áman*, *bao*, or winter rice. The yield of a normal crop is taken to be 7 cwt per acre for autumn rice and 10 cwt per acre for winter rice.

(Cotton) Cotton is grown in the Garo and the Khasi and Jaintiá Hills, in Cachar, Sylhet, Goalpara, Kamrup, Nowgong, and Sibsagar. It is also believed to be grown in the Naga Hills, but it is not possible to make any estimate of the crop there. The crop is sown in March and April. The normal rate of outturn is taken to be 200lb of cleaned cotton (400lb of seed cotton) per acre.

(Oilseeds) Mustard is grown in all the districts; but the estimates in this table relate to temporarily settled tracts only. Up to 1901-02 the season's figures were based on a standard (600lb to the acre) which was first adopted in 1893. In 1902-03 a separate standard rate of outturn was fixed for each district.

(Jute) The estimates for jute relate to the three districts of Sylhet, Goalpara, and the Garo Hills in which the cultivation of jute is of any importance. The Bengal rate of 1,200lb (= 3 bales) per acre for a normal crop is taken to estimate the yield of the crop.

(Sugarcane) The estimates for sugarcane relate to all the plains districts. The average yield of raw sugar (*gúr*) is taken to be 22 cwt per acre.

Eastern Bengal.

Estimates are made for rice, wheat, cotton, oilseeds, jute, and sugarcane. The figures are more or less conjectural, being based mainly on rough approximate estimates made by district officers, who obtain their information from thana (police) officers. The system of making crop cuttings, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in Eastern Bengal for the last ten years, but sufficiently trustworthy figures of yield have not yet been obtained from these cuttings to enable Government to accept them as standards.

(Rice) The rice crop includes the *bhadoi*, *aús* or autumn rice (sown in May and mostly reaped by the middle of September), the *áman* or winter rice (sown in May and June, transplanted in August and September, and reaped in November and December), and the *boro* or summer rice

(sown towards the close of the cold weather and reaped in April to June). The yield of a normal or 100 per cent crop is taken to be 10 cwt per acre for winter rice and 7 cwt per acre for autumn and summer rice. These rates have been assumed to represent the average yield in cleaned rice.

Wheat is grown in all the districts excepting Dinajpur, Bogra, Dacca, Backerganj, Tippera, Noakhali, and Chittagong. The average yield has been fixed provisionally at 10½ maunds or 861lb per acre. (Wheat)

For cotton four reports are prepared during the season. The crop is sown before the monsoon rains commence and harvested in winter, and is grown in Jalpaiguri and the Chittagong Hill Tracts. Separate rates of standard outturn have been adopted for each district. (Cotton)

The oilseeds are linseed, rape and mustard, and sesamum. The first three are grown in all districts (excepting Jalpaiguri and Rangpur, in the case of linseed), and are sown generally in October and reaped early in winter. The average yield is assumed to be 6 maunds per acre. (Oilseeds)

Sesamum is grown in all districts; it is sown generally in October and reaped early in winter. A late variety is sown in the cold weather and reaped in May. The average yield is assumed to be 4¼ maunds per acre.

The estimate of the jute crop covers all the districts except Chittagong. A general rate of 1,200lb, or three bales, is assumed to represent the average production per acre for every jute-growing district in the province. (Jute)

The report on sugarcane relates to all the districts of the province; it is sown during the winter season and harvested after a year. The average yield of raw sugar (*gúr*) is estimated at 22 cwt per acre. (Sugarcane)

Bengal.

Estimates are made for rice, wheat, cotton, oilseeds, jute, indigo, and sugarcane. In the absence of any Revenue Agency the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. The system of making crop cuttings, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in Bengal for the last thirteen years, but sufficiently trustworthy figures of yield have not yet been obtained from these cuttings to enable Government to accept them as standards.

The rice crop includes the *bhadoi, aús* or autumn rice (sown in May and mostly reaped by the middle of September), the *áman* or winter rice (sown in May and June, transplanted in August and September, and reaped in November and December), and the *boro* or summer rice (sown towards the close of the cold weather and reaped in April to June). The yield of a normal or 100 per cent crop is calculated as follows: the area cultivated with winter rice is multiplied by 15 maunds to the acre, and the area with autumn and summer rice by 10 maunds (the maund in each case being equal to 82⅔lb). These rates have been assumed to represent the average yield in cleaned rice. (Rice)

Wheat is grown in all the districts, excepting Howrah, the 24-Parganas, Khulna, and Puri. Of the total area under the crop the districts of the Patna Division contain about one-half and those of the Bhágalpur division about one-third. The average yield has been fixed provisionally at 12 maunds or 984lb per acre for the Bihar districts, 10½ maunds or 861lb per acre for the Bengal districts, and 451lb per acre for the districts of the Chota Nagpur Division. (Wheat)

For cotton two reports were prepared up to 1904-05, one on the early and the other on the late crop; but from 1905-06 four reports are prepared during the season. The early crop, which is sown before the monsoon rains commence and harvested in winter, is grown in the districts of Bankura, Midnapur, Saran, Monghyr, Bhágalpur, the Santhal Parganas, and in the Chota Nagpur and Orissa Divisions and also to a limited extent in Shahabad and Darbhanga. The late crop, which is usually sown at the close of the rainy season and harvested in May and June, is grown in the districts of Bankura, Midnapur, Manbhum, Singhbhum, and in the Patna, Bhágalpur, and Orissa Divisions, excepting the districts of Gaya, Purnea, the Santhal Parganas, and Angul. Separate rates of standard outturn for the early and the late crops have been adopted for each district. (Cotton)

The oilseeds are linseed, rape and mustard, and sesamum. The first three are grown in all districts (excepting Darjeeling, Angul, and Ranchi, in the case of linseed), and are sown generally in October and reaped early in winter. The average yield is assumed to be 6 maunds per acre. (Oilseeds)

Sesamum is grown in all districts except Darjeeling; it is sown generally in October and reaped early in winter. A late variety is sown in the cold weather and reaped in May. The average yield is assumed to be 4¼ maunds per acre.

The estimate of the jute crop covers seventeen districts in which jute is grown, namely, Burdwan, Midnapur, Hooghly, Howrah, all the districts of the Presidency Division, Champaran, Muzaffarpur, Bhágalpur, Purnea, Darjeeling, the Santhal Parganas, Cuttack, and Balasore. A general rate of 1,200lb, or three bales, is assumed to represent the average production per acre for every jute-growing district in the province. (Jute)

The report on indigo relates to districts in which the crop is still grown, namely, Nadia, Jessore, all the districts of the Patna Division except Patna, and all the districts of the Bhagalpur Division except Darjeeling. The average yield is assumed to be 20lb an acre in the districts of Monghyr, Bhágalpur, Purnea, and in the districts of the Patna Division, and (Indigo)

12lb an acre in all the remaining districts of the province. These rates serve as multipliers of the acreage under cultivation in each district in a year of normal, that is, 100 per cent outturn.

(Sugarcane) The report on sugarcane relates to all the districts of the province; it is sown during the winter season and harvested after a year. The average yield of raw sugar (*gúr*) is estimated at 22 cwt per acre.

United Provinces. Estimates are made for wheat, cotton, linseed, rapeseed, sesamum, indigo, and sugarcane.

The area is taken from the crop statements based on field-to-field inspections, which are furnished by patwáris and checked by higher revenue officers. The estimates of the standard yield are based on the results ascertained from crop cutting experiments conducted in selected districts. The standards, which are separate for irrigated and unirrigated crops, are revised every five years on a consideration of the results of crop experiments, and are applied to the condition of the crops reported by district officers and selected land-holders whose number exceeds five hundred.

(Cotton) The Native State of Rampur, which is the only cotton-growing State in the province, is included in the estimates from 1905-06. The estimates of both area and yield are based on the figures furnished by the six tahsils of the State.

(Oilseeds) The estimates for all oilseeds show separately the mixed crop, that is, crop grown in the same field with other crops, which is gathered in small quantities over a wide area mostly for home consumption. The estimates of the mixed crop are, however, highly conjectural.

Linseed, unmixed with any other crop, is chiefly grown in the districts of the Rohilkhand, Allahabad, Benares, Gorakhpur, Lucknow, and Fyzabad Divisions, and in Naini Tal; and rapeseed in the districts of the Rohilkhand, Gorakhpur, Lucknow, and Fyzabad Divisions, and in Naini Tal and Kheri.

The only districts in which til (sesamum), unmixed with any other crop, is cultivated to any considerable extent are Bánda, Hamírpur, Jhánsi, Jalaun, Mirzapur, Gorakhpur, Sitapur, Gonda, and Bahraich.

(Indigo) In estimating the yield of indigo (dye), it is assumed that one-tenth of the total area is annually set aside for seed, and that one-fourth of a factory maund of dye represents the full average yield in an average year.

Panjab. Estimates are prepared for wheat, cotton, rapeseed, sesamum, indigo, and sugarcane.

The figures of area are based on actual measurements by the revenue staff. Estimates of yield are recorded by Collectors after personal enquiry from tahsildars and leading agriculturists. The total number of agriculturists consulted by the Collectors and tahsildars must amount to several thousands.

(Wheat) The estimates of the wheat crop include all the districts of the province.

(Cotton) The estimates of the cotton crop relate to all the districts except Simla, and include the following Native States from 1904-05:—Patiala, Kapurthala, Bahawalpur, Nabha, and Jhind.

(Oilseeds) The estimates for rapeseed relate to all but four districts, the exceptions being Simla, Jalandhar, Montgomery, and Gurdaspur.

The estimates for sesamum relate to twenty-two districts: Hissar, Gurgaon, Karnál, Ambala, Ferozpur, Kángra, Hoshiarpur, Jalandhar, Multan, Jhang, Montgomery, Lahore, Amritsar, Gurdáspur, Siálkot, Gujrát, Gujránwála, Ráwalpindi, Attock, Mianwali, Dera Ghazi Khan, and Muzaffargarh.

(Indigo) Until 1904-05 the estimates for indigo related to seven districts: Hissar, Rohtak, Gurgaon, Karnál, Multan, Dera Ghazi Khan, and Muzaffargarh; in two of these (Hissar and Rohtak) the crop was grown only for seed, and in the remaining five partly for seed and partly for dye. From that year the estimates relate to four districts only: Rohtak, Multan, Dera Ghazi Khan, and Muzaffargarh.

(Sugarcane) The estimates for sugarcane relate to fifteen selected districts. The crop is sown in March and April.

N.-W. Frontier. Estimates are prepared for wheat, cotton, rapeseed, and sugarcane. Until 1903-04 an estimate was made for the sesamum crop also, but as the area never exceeded 10,000 acres it has been discontinued.

The figures of area are based on actual measurements made by the patwaris in their field-to-field inspection in each harvest. They are further checked by higher revenue officers.

The estimates of the standard yield are based principally on data derived from a large number of tests made during the progress of settlement operations in which crops were cut and weighed. They were framed for each assessment circle which is the unit of area, and separately for lands irrigated by canals, by wells, for alluvial (*sailab*) lands, and for lands entirely dependent on rain. The standards are applied to the estimates received from the district officers.

(Wheat) The estimates for wheat relate to all the districts of the province, and include the Tochi Agency from 1904-05, and the Kurram Agency from 1906-07.

(Cotton) The estimates of the cotton crop include all the districts of the province.

(Oilseeds) The estimates for rapeseed up to 1905-06 relate to all districts except Kohat. From 1906-07 Kohat has been included.

(Sugarcane) The sugarcane crop is sown in March and April. The estimate relates to three selected districts, namely, Hazara, Peshawar, and Bannu.

Bombay and Sind.

Estimates are framed for wheat, cotton, linseed, rapeseed, sesamum, groundnut and sugarcane. The estimates include British districts as well as Native States.

In the British districts of the Presidency the area under different crops is ascertained in the first instance by village officers and recorded in village returns which are checked by circle inspectors and other revenue officers, and compiled by the former for their circle, and then for the taluka. The taluka figures are totalled up for each district in the Director's office. For Sind this work is done by local officers, and the Director receives district-by-district figures. The information received is for villages for which regular statistics are available, the proportion of reporting area being 91·2 per cent in the Presidency proper and 99·6 per cent in Sind. In the case of Native States the acreage is estimated on the best local data available. The approximate numerical strength of the reporting agency is 175 in the Presidency proper, 57 in Sind, and 33 in the Native States.

No standard of yield has yet been adopted. Local estimates are converted to quantitative figures by a formula based partly on actual ascertainment of yield by crop cuttings and partly on returns of estimated yield and local enquiry. The ascertainment of actual yield is being systematically continued in each district under the direction of the provincial Agricultural Department, and the results are tabulated and compared in order to form a basis for a revision of the formula. The unit of area in the formula is the taluk and dry and irrigated crops are separately dealt with.

Each year's estimate is prepared by the mamlatdars (or mahalkaris where the taluk is sub-divided) from notes which they make and from reports from village accountants and circle inspectors. The estimate is sent direct to the Director of Agriculture, who, in the light of the general prospects of the season, makes the quantitative calculations. A copy of the estimate is at the same time sent to the Collector through the sub-divisional officer, who sends his remarks, if any, to the Collector, forwarding a copy of the same to the Director. The Collector on receipt of these remarks forwards to the Director his opinion as regards the general condition of the whole district.

Except for Gujarát, the formula is framed on a system by which allowance is made in the quantitative yield for the ascertained tendency of the raiyat to under-estimate good yields and to over-estimate poor yields.

For Sind there are no formulæ, and all the necessary information is obtained by the District Collectors in the form of estimates on the basis of twelve, together with quantitative equivalents gathered from general experience.

For the Native States estimates are obtained, and the formula for adjoining British districts is applied.

(Wheat) The estimates for wheat include the British districts and Native States in Gujarát, Deccan, Karnátak, and Sind.

(Cotton) The figures for cotton relate to the whole area under that crop in the Bombay Presidency (including Sind) and include both the early crop of the Deccan sown in July to August and harvested in December, and the late crop of Gujarát, Karnátak, and Sind sown in September to October and reaped in February to March.

(Oilseeds) The estimates for linseed include the British districts and the Native States in Gujarát, Deccan, and Karnátak.

Those for rapeseed include the British districts and the Native States in Gujarát and Sind.

The estimates for sesamum include the British districts and the Native States in Gujarát, Deccan, Karnátak, Konkan (excluding Kanara), and Sind.

(Groundnut) The estimates for groundnut include the British districts and Native States in the Deccan and the Belgaum district in Karnátak.

Central Provinces.

Estimates are framed for wheat, cotton, linseed, and sesamum.

As regards acreage, the figures for cotton and sesamum are estimates based on reports furnished by the local officials of the Land Records staff. The figures for wheat and linseed represent the actual areas sown with those crops as disclosed by the field-to-field inspection by patwaris. The reporting agency consists of 211 revenue inspectors with, on an average, 24 patwaris working under each inspector. Each tahsil has usually 4 revenue inspectors.

Standards of outturn were framed for each crop from the results of crop cutting experiments on selected fields under the supervision of responsible and selected officials during the years 1884-85 to 1887-88. For wheat the standard was framed separately for first and second class lands, and the proportion in which the area of each class was cropped was taken into account; irrigation also was taken into account, but in a less degree as it is of importance only in the case of the rice crop for which no estimates are made. The standards were revised in 1894 on a review of crop cuttings made during the four years, 1888-89 to 1891-92. They were again revised in 1898 on a revision of crop cuttings made during the four years 1892-93 to 1895-96. The standards for cotton were again revised in 1903. The yield expressed by the people in terms of annas in the rupee is converted into percentages, 13·3 annas, or a normal crop, being taken to be equal to 100. A full crop or 16 annas is denoted by 120, and a bumper crop or 20 annas by 150. All deductions based on the standards are made by the Director of Land Records and Settlements from the year's figures furnished by district officers who are supposed to bear in mind the standards when estimating the yield of the season.

Until 1897-98 the figures did not take into account the zamindari areas in Raipur, Biláspur, and Drug, for which no statistics were available, the survey being in progress. Since that year, the surveyed portions of these zamindari areas have been included.

(Wheat) The area sown with wheat as a mixed crop with gram is reduced for the purpose of excluding gram by 15 per cent in the districts of the Nagpur and Chattisgarh Divisions, and by from 25 to 40 per cent in the rest of the province.

(Cotton) The area on which cotton is grown mixed with other crops is reduced by deductions varying in the different districts from 7 to 16 per cent.

(Oilseeds) In the case of linseed sown with gram the area is reduced by 20 per cent for the purpose of excluding gram.

Berar. Estimates are framed for wheat, cotton, linseed, and sesamum.

The system by which areas are returned is similar to that in the Central Provinces.

No standard yield was fixed until 1903-04 and there was no specific system for estimating the yield of the harvests for the purposes of the forecasts. The estimates from 1903-04 have been calculated on the lines followed in the Central Provinces, taking the standard of normal outturn per acre to be 550lb for wheat, 100lb for cotton (cleaned), and 350lb each for linseed and sesamum.

Madras. Estimates are framed for rice, cotton, sesamum, groundnut, indigo, sugarcane, and castorseed.

The estimates of the rate of yield are those reported by tahsildars or deputy tahsildars, which are tabulated in the office of the Board of Revenue.

(Rice) For rice the standard rates are based on the grain values of soils taken for settlement purposes, and worked out for each settled district as the standard for these districts. For districts not yet settled, and for Tinnevelly, the average of all settled districts is taken.

(Cotton) For cotton the standard has been determined on a full consideration of all available data at 40lb per acre for *Northern* and *Westerns*, 55lb for *Salems*, 90lb for *Tinnevellies*, and 50lb for *Cocanadas* and others. The sowings of cotton continue from July to October in the central and Deccan districts, and in the southern districts until the end of December. The harvesting of the crop begins in February and continues until July or August.

(Sesamum) For sesamum the standard of yield has been fixed with reference to the latest crop cutting experiments at 336lb per acre for the Vizagapatam, Godavari, Tanjore, and Trichinopoly districts, 224lb for Malabar and the Deccan districts, and 280lb for the remaining districts.

(Groundnut) The groundnut crop is chiefly grown in North Arcot, Chingleput, South Arcot, Tanjore, and Trichinopoly, more than half being grown in South Arcot. The crop is also very largely grown in the zamindari area from which no statistical information is at present obtainable. The rate of outturn has been fixed at 10 cwt of nuts in shell per acre.

(Indigo) The estimates for indigo comprise the districts in which it is mainly grown: Kistna, Nellore, Karnul, Anantapur, Cuddapah, Chingleput, and North and South Arcot. The standard of yield was taken, on the best information on record, at 25lb of dye to the acre.

(Sugarcane) The sugarcane crop is grown chiefly in South Arcot, Trichinopoly, Ganjam, Godavari, Bellary, Anantapur, Coimbatore, and Cuddapah. The standard of yield has been fixed at 45 cwt of manufactured jaggery (*gúr*) to the acre.

Ajmer-Merwara. Estimates are made for cotton only. As regards area, the information is taken from the field book (*khasra girdawari*) prepared by the patwaris in November each year and checked by the higher revenue officers. The estimates of yield are based on the average of the results obtained by crop cutting experiments conducted each year. The Ajmer-Merwara district is divided into 12 girdawars' circles and in each circle the girdawar carries out crop experiment every harvest. The Revenue Extra Assistant Commissioner does the same in the Ajmer tahsil, and the tahsildars of Beawar and Todgarh in the two tahsils in Merwara. Each harvest a piece of land under a particular crop is selected and its yield weighed. The results of all the experiments are sent to the Revenue Extra Assistant Commissioner in whose office a combined return is prepared and included in the annual report.

The figures include khalsa as well as jagir and istimrár areas.

Rajputana and Central India. Estimates are framed for wheat and cotton. They are generally defective in consequence of the absence of figures for unsurveyed areas and privileged tenures in most cases.

Hyderabad. Estimates are framed for wheat, cotton, and oilseeds. Until 1902-03 the figures excluded *jagir* and such other revenue-free lands or privileged tenures; since then statistics for these areas have been obtained as far as possible and included in the statement.

Mysore. Estimates are framed for wheat and cotton.

Tables of Area and Yield

ABSTRACT TABLE OF AREA AND YIELD

			1893-94	1894-95	1895-96	1896-97	1897-98	1898-99	1899-1900	1900-01
Rice	acres		49,525,300	50,002,241	49,396,747	48,021,462	52,205,466	52,682,050	51,969,635	48,932,493
	cwt		459,119,400	497,901,780	415,355,100	275,676,100	498,350,700	505,640,600	451,553,460	413,506,700
Wheat	acres		28,716,735	28,421,851	24,071,320	20,579,727	24,537,775	25,370,078	18,687,782	23,864,550
	tons		7,268,982	6,998,930	5,380,342	5,363,289	7,208,384	6,837,674	5,357,142	7,093,529
Cotton	acres		15,404,156	14,959,103	14,515,662	14,643,495	13,683,437	14,602,892	11,884,576	14,231,150
	bales (*a*)		3,306,538	2,989,019	3,632,042	3,351,408	3,396,563	3,886,730	2,526,880	3,592,372
Linseed	acres	pure	4,854,100	3,781,684	2,954,093	2,020,747	2,707,887	2,829,475	1,648,903	2,417,991
		mixed	503,000	603,000	560,000	345,000	425,000	445,000	409,000	466,000
	tons	pure	559,800	271,798	287,407	162,479	354,994	336,610	206,220	247,024
		mixed	65,000	53,899	82,462	58,504	90,976	91,284	89,464	79,000
Rape and mustard	acres	pure	3,676,000	3,582,181	3,004,913	2,910,682	3,822,996	3,109,988	2,693,768	4,077,366
		mixed	1,557,000	1,613,000	1,290,000	1,526,000	1,459,000	1,509,000	1,381,000	1,449,000
	tons	pure	546,216	521,031	462,064	441,814	682,807	567,698	447,946	650,225
		mixed	240,000	216,050	359,979	340,602	436,451	410,983	425,471	372,000
Sesamum (til or jinjili)	acres	pure	2,619,240	3,000,969	3,171,472	3,369,198	3,662,109	3,530,625	3,316,067	4,052,491
		mixed	509,000	448,000	560,000	672,000	584,000	713,000	517,000	622,000
	tons	pure	222,609	277,933	282,129	250,958	355,817	348,118	213,256	72,856
		mixed	50,000	40,000	55,000	45,000	60,000	70,000	60,000	75,000
Jute (*b*)	acres		2,222,600	2,264,300	2,242,700	2,196,600	2,151,600	1,624,400	1,961,800	2,093,400
	bales		5,001,700	6,144,300	5,551,000	5,717,000	6,839,000	5,334,000	5,412,000	6,526,000
Indigo	acres		1,552,008	1,688,042	1,414,002	1,608,901	1,339,099	1,010,318	1,026,900	990,375
	cwt		179,437	237,494	190,924	168,673	166,812	139,320	111,890	148,029
Groundnut	acres		...	...	243,400	306,026	214,803	217,814	173,946	294,408
	tons		...	...	...	...	55,962	70,561	9,250	28,631
Sugarcane	acres		...	...	...	...	...	2,485,681	2,541,470	2,404,156
	tons		...	...	...	...	...	2,076,234	1,860,005	2,276,748

(*a*) The yield in bales for all the years represents the quantities exported from India and consumed in the country in and outside mills, as the reported estimates of yield fall short of the total of net exports and consumption. (See page 19)

(*b*) See footnotes on page 29 regarding the acreage and yield of jute

IN EACH YEAR FROM 1893-94 TO 1907-08

1901-02	1902-03	1903-04	1904-05	1905-06	1906-07	1907-08		
48,511,190	51,842,390	49,461,465	51,586,900	54,428,600	54,157,600	54,098,500	acres	Rice
384,294,100	469,484,800	439,280,700	448,461,100	433,138,300	427,743,800	387,300,200	cwt	
23,446,161	23,395,277	28,413,743	28,470,200	26,357,400	29,212,500	22,661,900	acres	Wheat
6,090,524	7,971,446	9,641,145	7,582,040	8,570,140	8,491,700	6,136,400	tons	
14,506,295	16,581,046	18,025,000	19,918,000	21,072,000	22,344,000	21,074,000	acres	Cotton
4,054,588	4,540,217	4,269,367	4,454,254	4,685,751	5,361,655	4,479,443	bales (*a*)	
2,546,604	2,592,237	3,009,079	3,747,400	2,711,800	3,110,200	1,813,100	pure — acres	Linseed
498,000	621,000	592,000	647,000	567,000	633,000	269,000	mixed — acres	
251,808	359,568	466,832	298,400	265,200	312,200	133,200	pure — tons	
100,113	122,000	105,000	49,000	88,000	113,000	30,000	mixed — tons	
3,082,662	3,421,883	3,583,445	3,640,000	4,002,800	4,183,100	3,274,700	pure — acres	Rape and mustard
1,461,000	2,335,000	2,429,000	2,509,000	2,026,000	2,210,000	1,870,000	mixed — acres	
525,035	521,926	623,206	540,400	563,600	629,100	464,900	pure — tons	
430,617	516,000	542,000	336,000	398,000	424,000	217,000	mixed — tons	
3,711,711	4,435,648	4,838,164	4,178,700	3,913,800	3,864,900	3,758,900	pure — acres	Sesamum (til or jinjili)
611,000	717,000	747,000	600,000	700,000	775,000	900,000	mixed — acres	
96,210	93,587	539,478	300,400	344,800	451,000	241,600	pure — tons	
60,000	80,000	70,000	35,000	45,000	90,000	30,000	mixed — tons	
2,263,800	2,142,700	2,275,050	2,899,700	3,128,300	3,482,900	3,915,200	acres	Jute (*b*)
7,438,000	6,577,000	7,241,000	7,400,000	8,140,900	9,206,400	9,667,400	bales	
791,190	645,510	706,634	476,900	383,600	421,200	371,300	acres	Indigo
112,819	79,207	102,802	58,900	48,200	65,700	51,400	cwt	
424,222	491,155	474,193	459,700	485,900	622,000	668,600	acres	Groundnut(*c*)
63,298	61,854	94,419	214,900	211,200	273,700	259,100	tons	
2,316,391	2,207,829	2,114,592	2,244,800	2,111,000	2,351,800	2,622,400	acres	Sugarcane
2,022,476	1,906,784	1,871,986	2,169,000	1,725,500	2,205,300	2,054,700	tons	

(*c*) The figures of yield for years previous to 1904-05 relate to Bombay only

Note.—The figures for 1907-08 are subject to revision

RICE

[The figures in cwt. represent the outturn of clean rice]

Province	acres	cwt	Character of season
Bengal (a)			
1893-94	37,886,500	374,227,800	Favourable for winter but less unfavourable for autumn rice
1894-95	38,639,500	416,857,200	Favourable throughout
1895-96	37,447,600	317,514,600	Rainfall insufficient during the latter part of the season
1896-97	36,177,400	179,637,400	Very unfavourable. Extensive failure of crop with famine
1897-98	39,549,500	398,142,000	Favourable
1898-99	39,605,400	405,842,900	Favourable
1899-1900	39,490,500	357,956,360	Unfavourable for autumn, but better for winter rice
1900-01	36,013,900	311,508,600	Not favourable owing to ill distributed rainfall
1901-02	35,094,800	272,201,900	Unfavourable particularly for the winter crop
1902-03	37,553,700	358,977,300	Not unfavourable on the whole
1903-04	34,931,500	316,669,700	Not favourable owing to deficient rainfall
1904-05	38,355,200	347,229,100	Rainfall unseasonable and ill distributed
1905-06	25,150,600	227,967,500	Crop damaged by heavy rain and floods in places
1906-07	24,516,000	195,545,300	Unfavourable owing to unseasonable rainfall and floods
1907-08	24,473,200	140,161,100	Unfavourable. Rainfall unseasonable and ill distributed
Eastern Bengal and Assam			
1905-06	15,960,200	101,397,600	Crop damaged by heavy rain and consequent floods
1906-07	15,723,500	119,835,800	Unfavourable for autumn but favourable for winter crop
1907-08	15,056,300	130,138,000	Very favourable for autumn but less so for winter crop
Madras (b)			
1893-94	6,710,200	37,017,600	Favourable at first, but late rains injured crop in places
1894-95	6,569,400	35,662,600	Rainfall partial and insufficient
1895-96	6,881,000	56,359,500	Generally favourable, though crop affected in places by floods
1896-97	6,620,000	48,359,700	Unfavourable in northern but better in southern districts
1897-98	6,935,200	47,991,700	Crop affected by failure of north east monsoon
1898-99	7,166,000	54,946,700	Rain deficient in northern and excessive in southern districts
1899-1900	6,429,000	39,437,100	Favourable at first, but latterly unfavourable in most districts
1900-01	6,591,600	49,023,100	Not unfavourable on the whole
1901-02	6,858,200	51,490,200	Favourable
1902-03	7,734,800	57,485,500	Favourable
1903-04	7,768,300	58,200,000	Favourable
1904-05	6,322,700	40,497,000	Unfavourable owing to failure of rains
1905-06	6,604,400	45,833,200	Not unfavourable
1906-07	6,944,400	50,438,200	Rainfall seasonable
1907-08	7,276,800	52,261,100	Water supply not quite sufficient, but crop fair

(*a*) Includes Eastern Bengal up to 1904-05

(*b*) The estimates for Madras up to 1906-07 relate only to raiyatwari villages; but since that year estimates for certain *zamindari* and whole *inam* villages have also been included

Note.—The figures for 1907-08 are subject to revision

RICE—*continued*

[The figures in cwt. represent the outturn of clean rice]

Province	acres	cwt	Character of season
Lower Burma			
1893-94	4,928,600	47,874,000	Favourable
1894-95	4,793,341	45,381,980	Rainfall insufficient
1895-96	5,068,147	41,481,000	Late rains unequally distributed
1896-97	5,224,062	47,679,000	Favourable
1897-98	5,720,766	52,217,000	Uniformly favourable
1898-99	5,910,650	44,851,000	Rain failed towards end of season, causing some injury
1899-1900	6,050,135	54,160,000	Good
1900-01	6,326,993	52,975,000	Not unfavourable
1901-02	6,558,190	60,602,000	Favourable
1902-03	6,553,890	53,022,000	Favourable, though floods caused damage in places
1903-04	6,761,665	64,411,000	Very favourable
1904-05	6,909,000	60,735,000	Rainfall seasonable, but crop affected by floods and high winds
1905-06	6,713,400	57,940,000	Generally favourable except for damage by floods in places
1906-07	6,973,700	61,924,000	Favourable on the whole
1907-08	7,292,200	64,740,000	Rainfall late but ample and well distributed
Total			
1893-94	49,525,300	459,119,400	Favourable generally
1894-95	50,002,241	497,901,780	Favourable on the whole
1895-96	49,396,747	415,355,100	Not very favourable owing to ill distributed rainfall
1896-97	48,021,462	275,676,100	Unfavourable except in Burma
1897-98	52,205,466	498,350,700	Favourable generally
1898-99	52,682,050	505,640,600	Favourable on the whole
1899-1900	51,969,635	451,553,460	Not very favourable
1900-01	48,932,493	413,506,700	Not favourable
1901-02	48,511,190	384,294,100	Unfavourable except in Madras and Burma
1902-03	51,842,390	469,484,800	Favourable on the whole
1903-04	49,461,465	439,280,700	On the whole not unfavourable
1904-05	51,586,900	448,461,100	Not very favourable
1905-06	54,428,600	433,138,300	Crop damaged by heavy rain and floods in many places
1906-07	54,157,600	427,743,800	Not very favourable
1907-08	54,098,500	387,300,200	Not favourable

Note.—The figures for 1907-08 are subject to revision

WHEAT

Province	acres	tons	Character of season
Panjab			
1893-94	8,265,200	2,560,341	Very favourable, though crop injured by rust in places
1894-95	8,051,800	2,385,353	Winter rain sufficient and harvest excellent
1895-96	6,893,400	1,753,766	Very unfavourable for dry crop owing to deficient rain
1896-97	6,584,300	1,872,066	Sowings restricted owing to weak monsoon but winter rains copious
1897-98	8,013,800	2,358,975	Favourable, but late crop damaged at harvest time
1898-99	7,729,200	1,977,777	Not favourable. Outturn affected by deficient rain, rust, insects
1899-1900	6,366,500	1,823,182	Monsoon rains scanty, but winter rains beneficial
1900-01	8,766,400	2,940,602	Very favourable, except for damage by rust and excessive rain
1901-02	7,227,100	1,846,332	Unfavourable owing to early cessation of monsoon and failure of winter rains
1902-03	6,995,200	2,314,714	Favourable, except for damage by drought in the middle of the season
1903-04	7,765,700	3,075,161	Distinctly favourable
1904-05	7,712,100	2,855,300	Favourable
1905-06	8,572,100	3,510,300	Very favourable
1906-07	9,100,100	3,266,900	Favourable, except for local damage by excessive rain, rust and hail-storms
1907-08(a)	8,268,500	2,495,400	Unsatisfactory. Monsoon ceased early. Winter rains late and scanty
N.-W. Frontier (b)			
1901-02	796,500	159,279	Unusual drought throughout season
1902-03	822,900	234,594	Favourable on the whole
1903-04	994,062	302,094	Very favourable
1904-05	882,200	267,600	Favourable
1905-06	1,024,600	279,700	Favourable on the whole
1906-07	1,146,400	305,200	Favourable on the whole
1907-08	977,700	213,200	Restricted sowings; but late rains beneficial
United Provinces			
1893-94	6,674,889	1,854,695	Generally favourable, except for damage by high winds and rust
1894-95	6,333,688	1,469,996	Rain excessive. Crop injured by high winds and cloudy weather
1895-96	5,177,261	1,591,294	Rain deficient throughout season
1896-97	4,931,710	1,850,914	Autumn rain irregular and scanty. Winter rain well-distributed
1897-98	5,985,146	2,249,633	Favourable generally
1898-99	6,348,688	2,277,414	Favourable on the whole
1899-1900	6,202,826	2,410,052	Rainfall deficient at first but favourable later
1900-01	6,790,440	2,384,605	Favourable, except for damage by cloudy weather and rust
1901-02	6,461,729	2,401,940	Rainfall late and deficient
1902-03	6,909,549	2,972,497	Favourable on the whole
1903-04	7,788,753	3,230,018	Remarkably good
1904-05	7,706,500	1,897,000	Favourable at the beginning but disastrous afterwards
1905-06	6,478,900	2,428,700	Favourable for irrigated crop
1906-07	7,044,000	2,164,500	Favourable at first, but unfavourable afterwards
1907-08	4,406,500	1,674,700	Unfavourable on the whole
Central Provinces			
1893-94	3,986,000	575,000	Fair on the whole
1894-95	3,393,348	502,275	Crop suffered from heavy rain and fungoid diseases
1895-96	2,714,454	368,038	Unfavourable
1896-97	1,969,623	332,645	Winter rains generally favourable
1897-98	2,171,714	543,095	Crop suffered somewhat from insufficient moisture
1898-99	2,505,299	456,169	Not favourable
1899-1900	1,633,070	201,803	Very unfavourable
1900-01	2,055,736	440,909	Favourable except for damage by rust
1901-02	2,620,138	571,040	Unfavourable owing to insufficient rainfall
1902-03	2,284,908	666,589	Favourable except for damage by frost and insects
1903-04	2,921,161	751,388	Favourable except at the end of the season
1904-05	3,068,500	751,900	Favourable except for damage by frost and rust in places
1905-06	3,019,500	773,700	Favourable on the whole
1906-07	3,274,100	831,500	Favourable on the whole
1907-08	2,470,600	466,300	Unfavourable owing to deficiency of moisture

(*a*) Including Native States
(*b*) Constituted in 1901 out of the Panjab

Note.—The figures for 1907-08 are subject to revision

WHEAT—*continued*

Province	acres	tons	Character of season
Bengal (a)			
1893-94	1,461,000	459,000	Rainfall excessive at first but deficient afterwards
1894-95	1,413,000	686,300	Crop suffered somewhat from drought
1895-96	1,427,400	345,600	Autumn rains ceased early and winter rains failed
1896-97	1,311,700	386,100	Unfavourable at first, but slightly better afterwards
1897-98	1,569,500	592,600	Favourable
1898-99	1,582,500	656,400	Uniformly favourable
1899-1900	1,550,300	572,700	Not favourable on the whole
1900-01	1,498,700	472,600	Unfavourable
1901-02	1,408,300	391,500	Unfavourable owing to failure of rains
1902-03	1,417,000	485,900	Unfavourable on the whole
1903-04	1,508,600	527,800	Generally favourable
1904-05	1,324,900	433,200	Unfavourable on the whole
1905-06	1,248,300	396,600	Crop seriously damaged by continuous rain and hailstorms
1906-07	1,402,600	388,700	Unfavourable
1907-08	1,003,100	299,200	Very unfavourable
Eastern Bengal			
1904-05	180,700	62,000	On the whole not favourable
1905-06	159,800	50,000	Not favourable owing to ill-distributed rainfall
1906-07	135,900	31,900	Unfavourable
1907-08	92,700	21,400	Very unfavourable
Bombay (including Native States) (b)			
1893-94	2,525,000	762,000	Outturn satisfactory, though rain excessive in parts
1894-95	2,678,665	744,961	Favourable, though crop injured by cloudy weather rust and frost
1895-96	2,288,838	454,865	Unfavourable owing to deficient moisture
1896-97	1,446,741	288,002	Unfavourable. Rains failed
1897-98	2,004,832	627,914	Rain continuous and excessive
1898-99	2,470,998	737,385	Not favourable on unirrigated but good on irrigated land
1899-1900	1,157,077	99,408	Very unfavourable. Rains failed
1900-01	1,433,810	298,479	Unfavourable owing to want of rain
1901-02	1,510,459	179,034	Unfavourable owing to deficient rainfall. Damage by rats
1902-03	1,797,245	532,601	Favourable on the whole
1903-04	2,174,076	560,279	Fairly good on the whole
1904-05	2,260,900	356,600	Not favourable owing to deficient rain, cold and frost
1905-06	1,347,200	275,100	Unfavourable owing to insufficiency of moisture
1906-07	1,662,900	338,200	Not favourable on the whole
1907-08	1,505,500	315,600	Generally unfavourable owing to deficient water-supply
Berar			
1893-94	928,000	170,893	Favourable on the whole
1894-95	889,326	150,232	Not very favourable owing to heavy rain
1895-96	747,025	103,084	Unfavourable owing to early cessation of monsoon
1896-97	381,425	23,413	Crop failed owing to want of rain
1897-98	390,378	41,983	Unfavourable on the whole
1898-99	436,362	53,571	Not favourable on the whole
1899-1900	17,910	414	Disastrously bad owing to failure of rains
1900-01	243,554	29,900	Unfavourable on the whole
1901-02	280,085	34,385	Favourable, but crop damaged by rats
1902-03	216,955	34,625	Favourable, but sowings restricted
1903-04	452,663	70,052	Not very favourable owing to heavy rain and hailstorms
1904-05	428,600	80,000	Favourable on the whole
1905-06	424,300	60,700	Not very favourable owing to deficient monsoon
1906-07	440,300	72,660	Favourable on the whole
1907-08	286,900	33,500	Not favourable owing to deficiency of moisture

(*a*) Includes Eastern Bengal up to 1903-04
(*b*) Includes the State of Baroda also

Note.—The figures for 1907-08 are subject to revision

WHEAT—*continued*

Province	acres	tons	Character of season
Sind (including Native States)			
1893-94	531,000	161,000	Inundation insufficient
1894-95	673,251	215,361	Favourable
1895-96	315,559	71,683	Unfavourable
1896-97	406,752	116,470	Not unfavourable on the whole
1897-98	591,621	177,160	Inundation seasonable and sufficient
1898-99	369,706	81,231	Decidedly bad owing to insufficient inundation
1899-1900	364,522	68,226	Unfavourable
1900-01	479,487	123,160	Generally good
1901-02	534,004	109,009	Fairly good
1902-03	331,608	75,987	Unfavourable owing to poor inundation
1903-04	586,895	202,171	Favourable
1904-05	522,700	126,100	Not very favourable owing to low inundation and frost
1905-06	628,100	196,200	Favourable on the whole
1906-07	672,300	186,300	Favourable, but crop suffered in places from rain and hail
1907-08	431,500	108,200	Not favourable owing to low inundation and frost
Rajputana			
1893-94	1,646,000	389,000	Not reported
1894-95	1,529,146	368,168	
1895-96	1,306,868	315,573	
1896-97	1,374,346	233,932	Rainfall deficient
1897-98	1,802,233	307,062	Not reported
1898-99	1,196,014	276,388	
1899-1900	360,733	79,289	
1900-01	713,290	170,682	Not favourable
1901-02	541,834	103,869	Unfavourable
1902-03	818,399	190,841	Fairly good
1903-04	1,125,277	297,162	Favourable
1904-05	1,023,800	189,000	Not favourable
1905-06	665,600	136,600	Not very favourable
1906-07	842,400	181,600	Favourable
1907-08	603,800	118,500	Unfavourable owing to want of moisture
Central India			
1893-94 (*a*)	1,537,143	227,819	Not reported
1894-95	2,042,531	396,567	
1895-96	1,740,608	290,745	
1896-97	1,366,269	179,949	
1897-98	1,501,013	279,492	
1898-99	1,613,851	287,749	
1899-1900	692,950	100,276	
1900-01	1,244,330	220,116	
1901-02	1,459,116	255,027	
1902-03	1,182,298	408,843	
1903-04	1,956,069	523,855	
1904-05	2,227,400	473,200	
1905-06	1,852,100	420,600	
1906-07	2,447,500	614,600	
1907-08	1,679,700	322,600	

(*a*) Incomplete

Note.—The figures for 1907-08 are subject to revision

WHEAT—*concluded*

Province	acres	tons	Character of season
Hyderabad (*a*)			
1893-94	1,162,503	109,234	Not reported
1894-95	1,412,562	69,413	Not favourable owing to heavy rain late in the season
1895-96	1,454,451	85,331	Not reported
1896-97	772,990	18,585	Unfavourable
1897-98	1,003,175	30,139	Not very unfavourable
1898-99	1,113,431	33,098	Favourable, but crop damaged by rats
1899-1900	339,136	1,538	Disastrously bad owing to failure of rain
1900-01	636,247	12,279	Unfavourable owing to holding off of rain
1901-02	603,182	38,853	Not favourable, crop damaged by rats
1902-03	614,092	53,724	Favourable, but sowings restricted
1903-04	1,134,769	100,535	Favourable
1904-05	1,126,600	89,700	Not favourable owing to deficient winter rains
1905-06	934,500	41,800	Unfavourable owing to want of late rains
1906-07	1,039,500	109,000	Favourable
1907-08	932,900	67,200	Unfavourable owing to insufficient rainfall
Mysore			
1893-94	(*b*)	(*b*)	Not reported
1894-95	4,534	304	
1895-96	5,456	363	
1896-97	3,871	413	
1897-98	4,363	381	
1898-99	4,029	492	
1899-1900	2,758	254	
1900-01	2,556	197	
1901-02	3,714	256	
1902-03	5,123	531	
1903-04	5,718	630	
1904-05	5,300	440	
1905-06	2,400	140	
1906-07	4,500	700	
1907-08	2,500	600	
Total			
1893-94	28,716,735	7,268,982	Not unfavourable on the whole
1894-95	28,421,851	6,998,930	Not favourable owing to heavy rain at sowing time
1895-96	24,071,320	5,380,342	Unfavourable
1896-97	20,579,727	5,363,289	Unfavourable
1897-98	24,537,775	7,208,384	Favourable on the whole
1898-99	25,370,078	6,837,674	Not favourable on the whole
1899-1900	18,687,782	5,357,142	Unfavourable on the whole
1900-01	23,864,550	7,093,529	Not unfavourable on the whole
1901-02	23,446,161	6,090,524	Unfavourable on the whole
1902-03	23,395,277	7,971,446	Favourable on the whole
1903-04	28,413,743	9,641,145	Exceptionally good
1904-05	28,470,200	7,582,040	Not very favourable on the whole
1905-06	26,357,400	8,570,140	Favourable on the whole
1906-07	29,212,500	8,491,700	Favourable at first, but dull weather prevailed later
1907-08	22,661,900	6,136,400	Disappointing. Crop injured by deficient rain, cold winds, frosts

(*a*) The figures for the years previous to 1902-03 exclude *jagir* areas
(*b*) No information

Note.—The figures for 1907-08 are subject to revision

COTTON

[The figures in bales represent the outturn of cleaned cotton, *i.e.*, cotton with the seeds extracted]

Province	acres	bales of 400 lb	Character of season
Bombay (including Native States) (a)			
1893-94	5,910,856	1,023,480	Favourable, though crop affected by excessive rain
1894-95	5,292,717	880,240	Not favourable owing to ill-distributed rainfall
1895-96	5,303,598	1,029,455	Favourable on the whole
1896-97	5,033,549	827,819	Unfavourable on the whole, owing to drought
1897-98	4,751,103	948,514	Not very favourable owing to damage from blight and locusts
1898-99	5,098,145	1,232,861	Favourable on the whole
1899-1900	3,095,206	(*b*)81,647	Extremely unfavourable owing to failure of rains
1900-01	4,240,140	759,096	Not favourable owing to deficiency of late rains
1901-02	4,394,796	567,386	Unfavourable owing to insufficient rain
1902-03	4,786,657	943,327	Favourable, though crop affected by excessive rain and cold in places
1903-04	5,702,000	1,059,000	Favourable on the whole
1904-05	5,955,000	796,000	Unfavourable owing to deficiency of moisture
1905-06	6,665,000	1,198,000	Favourable at first, but not so afterwards
1906-07	7,383,000	1,762,000	Favourable
1907-08	6,560,000	960,000	Not favourable owing to early cessation of monsoon
Berar (c)			
1893-94	2,184,800	291,597	Not favourable owing to excessive rain
1894-95	2,102,956	255,628	
1895-96	2,071,856	451,230	Favourable on the whole
1896-97	2,306,870	335,576	Not favourable owing to failure of monsoon after August
1897-98	2,150,329	439,480	Favourable on the whole
1898-99	2,476,306	617,222	Outturn good though late rains failed
1899-1900	1,983,602	104,693	Very unfavourable owing to failure of rains
1900-01	2,521,651	780,962	Favourable on the whole
1901-02	2,689,201	612,344	Favourable, though crop injured by rats
1902-03	2,765,635	710,068	Favourable, though crop damaged by heavy rain in November
1903-04	2,351,000	486,000	Not favourable owing to heavy rain
1904-05	3,069,000	755,000	Favourable on the whole
1905-06	3,192,000	475,000	Not favourable owing to ill-distributed rainfall
1906-07	3,289,000	553,000	Crop injured by heavy and continuous rain
1907-08	3,071,000	371,000	Unfavourable owing to want of moisture
Madras (d)			
1893-94	1,724,000	121,200	Favourable at first, but unfavourable afterwards
1894-95	1,521,500	106,980	Unfavourable owing mainly to want of timely rains
1895-96	1,623,900	120,524	Favourable on the whole
1896-97	1,395,400	104,655	Not favourable owing to ill-distributed rainfall
1897-98	1,509,100	118,876	Crop injured by blight or drought in places
1898-99	1,321,700	127,670	Not very favourable
1899-1900	1,382,700	101,440	Unfavourable on the whole
1900-01	1,373,300	118,320	Not favourable on the whole
1901-02	1,351,200	130,130	Fair on the whole
1902-03	1,580,900	167,169	Favourable
1903-04	1,665,000	175,000	
1904-05	1,755,000	132,000	Not favourable owing to want of sufficient rain
1905-06	1,597,000	145,000	
1906-07	1,548,000	157,000	Favourable
1907-08	1,849,000	184,000	Favourable

(*a*) Includes the State of Baroda also

(*b*) The estimate for the year is too low, as the mill consumption for the year ending the 30th June and the net exports for the year ending the 30th September were 605,000 bales. For both the preceding and the following years the trade figures are however lower than the estimates, so that for the 3 years 1898—1901 the production would seem to be understated only by 109,000 bales. In this calculation the excess of the exports from the districts of the North and East Deccan over their reported production, which averages 208,000 bales in the twelve years 1891—1903, has been taken to represent imports by road into the Presidency from the neighbouring Native States

(*c*) The figures of production for Berar for the years previous to 1903-04 represent the mill consumption for the year ending the 30th June and the exports for the year ending the 30th September, as the provincial estimates of the outturn were extremely defective

(*d*) The estimates for Madras up to 1906-07 relate only to *raiyatwari* tracts; but since that year estimates for certain *zamindari* and whole *inam* villages and Native States have also been included

Note.—The figures for 1907-08 are subject to revision

COTTON—*continued*

[The figures in bales represent the outturn of cleaned cotton, *i.e.*, cotton with the seeds extracted]

Province	acres	bales of 400 lb	Character of season
Hyderabad *(a)*			
1893-94	1,456,283	147,199	Not unfavourable
1894-95	1,611,912	117,277	Crop suffered from excessive rain
1895-96	1,492,768	173,283	Not reported
1896-97	1,558,296	137,152	Not favourable
1897-98	1,653,669	163,449	
1898-99	1,738,379	222,302	Not very favourable
1899-1900	1,292,329	91,975	Very unfavourable owing to drought
1900-01	1,698,836	288,570	Not very favourable owing to sudden cessation of winter rains
1901-02	1,689,139	300,301	Favourable
1902-03	2,359,130	280,267	Not favourable owing to cloudy weather and untimely rain
1903-04	2,661,000	275,000	Not favourable owing to heavy rain and strong winds
1904-05	2,731,000	330,000	Favourable
1905-06	2,537,000	303,000	Crop suffered through failure of late rains
1906-07	3,480,000	449,000	Favourable on the whole
1907-08	3,100,000	3.0,000	Unfavourable for early crop, but better for late crop
United Provinces *(b)*			
1893-94	1,069,307	296,643	Crop injured by heavy rain and strong winds
1894-95	1,214,747	198,333	Unfavourable owing to heavy rain and stormy winds
1895-96	1,060,905	280,414	Favourable on the whole
1896-97	1,150,069	260,521	Crop injured by drought and dry west winds
1897-98	919,671	225,478	Not unfavourable on the whole
1898-99	933,395	261,304	Favourable on the whole
1899-1900	996,673	227,787	Unfavourable on the whole
1900-01	1,046,176	294,169	Favourable on the whole
1901-02	1,153,870	368,638	Favourable though rains were late
1902-03	1,239,131	327,728	Crop suffered from deficient rain, high winds and insects
1903-04	841,000	184,000	Not favourable owing to excessive rain and winds
1904-05	1,201,000	368,000	Favourable on the whole
1905-06	1,372,000	394,000	Crop suffered from deficient rainfall
1906-07	1,489,000	639,000	Very favourable
1907-08	1,461,000	268,000	Not favourable owing to early cessation of monsoon
Panjab *(b)*			
1893-94	1,124,500	231,997	Favourable on the whole
1894-95	1,161,200	241,667	
1895-96	1,176,700	204,806	Rainfall generally insufficient and untimely
1896-97	1,128,400	223,947	Monsoon ceased early and irrigation inadequate
1897-98	788,600	166,707	Not favourable owing to insufficient rain
1898-99	988,400	138,926	Unfavourable owing to scanty and irregular rainfall
1899-1900	1,215,400	205.203	Unfavourable owing to the holding off of rain
1900-01	1,080,200	219,646	Crop suffered from heavy rainfall and insects
1901-02	1,026,800	213,466	Not very favourable on the whole
1902-03	1,193,600	229,005	Rainfall deficient
1903-04	1,205,100	261,241	Fairly satisfactory on the whole
1904-05	1,698,000	408,000	Favourable
1905-06	2,020,000	192,000	Disastrous owing to injury by green fly, drought and boll-worm
1906-07	1,413,000	357,000	Favourable on the whole
1907-08	1,475,000	357,000	Not very favourable owing to abrupt cessation of monsoon
N.-W. Frontier *(c)*			
1901-02	30,400	6,759	Not favourable on the whole
1902-03	27,400	7,420	Favourable on the whole
1903-04	35,900	8,424	
1904-05	49,000	10,000	Not unfavourable on the whole
1905-06	59,000	13,000	
1906-07	61,000	13,000	
1907-08	48,000	9,000	Not favourable on the whole

(*a*) The figures for the years previous to 1902-03 exclude *jagir* areas
(*b*) Including Native States from 1904-05
(*c*) Constituted in 1901 out of the Panjab

Note.—The figures for 1907-08 are subject to revision

COTTON—*continued*

[The figures in bales represent the outturn of cleaned cotton, *i.e.*, cotton with the seeds extracted]

Province	acres	bales of 400 lb	Character of season
Central Provinces			
1893-94 (*a*)	690,700	79,600	Not favourable owing to excessive rain
1894-95 (*a*)	601,984	81,196	Not favourable owing to excessive rain
1895-96 (*a*)	541,087	105,940	Favourable
1896-97 (*a*)	718,186	86,950	Not favourable owing to scanty rainfall
1897-98	668,847	118,994	Crop injured by excessive rain
1898-99	668,522	165,169	Not favourable owing to ill-distributed rainfall
1899-1900	712,836	(*b*) 117,050	Very unfavourable owing to exceptional drought
1900-01	1,004,812	(*b*) 268,958	Not favourable owing to irregular rainfall
1901-02	981,342	267,737	Not favourable owing to irregular rainfall
1902-03	1,136,431	260,798	Not favourable on the whole
1903-04	1,293,000	274,000	Not favourable on the whole
1904-05	1,484,000	474,000	Favourable
1905-06	1,657,000	343,000	Not favourable owing to ill-distributed rain
1906-07	1,389,000	328,000	Crop damaged by heavy rain and floods in places
1907-08	1,384,000	224,000	Unfavourable owing to want of moisture
Rajputana			
1893-94 (*c*)	617,600	171,700	Not reported
1894-95	619,362	184,696	Not reported
1895-96	514,854	150,862	Not reported
1896-97	549,236	145,492	Not reported
1897-98	542,435	137,669	Not reported
1898-99	478,604	117,743	Unfavourable on the whole
1899-1900	325,033	44,161	Very unfavourable owing to failure of rains
1900-01	369,384	104,390	Not reported
1901-02	281,934	87,858	Not reported
1902-03	456,503	164,142	Favourable on the whole
1903-04	395,000	113,000	Not favourable owing to high winds and locusts
1904-05	469,000	186,000	Favourable on the whole
1905-06	291,000	61,000	Unfavourable
1906-07	428,000	201,000	Favourable
1907-08	438,000	102,000	Not favourable
Central India			
1893-94 (*d*)	295,300	31,900	Not reported
1894-95	512,936	38,000	Not reported
1895-96	420,239	49,500	Not reported
1896-97	522,683	45,900	Not reported
1897-98	417,456	60,600	Not reported
1898-99	471,408	46,800	Favourable on the whole
1899-1900	479,565	23,100	Very unfavourable owing to failure of rains
1900-01	542,673	63,900	Favourable on the whole
1901-02	529,094	72,200	Favourable on the whole
1902-03	591,006	115,878	Favourable on the whole
1903-04	772,000	125,000	Favourable on the whole
1904-05	846,000	136,000	Favourable
1905-06	979,000	130,000	Unfavourable except at sowing time
1906-07	1,132,000	222,000	Favourable
1907-08	990,000	54,000	Unfavourable
Sind (including Native States)			
1893-94	115,810	75,081	Favourable on the whole
1894-95	113,589	55,141	Crop damaged by floods and blight
1895-96	111,855	51,018	Water-supply deficient
1896-97	123,706	56,694	Fairly good
1897-98	108,227	40,176	Not favourable
1898-99	92,312	39,712	Not favourable owing to frost
1899-1900	92,069	20,507	Unfavourable owing to deficient water supply
1900-01	84,560	43,031	Not unfavourable on the whole
1901-02	129,409	72,553	Not unfavourable on the whole
1902-03	195,486	110,808	Favourable on the whole
1903-04	209,000	115,000	Favourable on the whole
1904-05	221,000	97,000	Not unfavourable on the whole
1905-06	283,000	84,000	Favourable, but crop damaged by boll-worm
1906-07	250,000	154,700	Favourable on the whole
1907-08	232,000	121,000	Not favourable owing to deficient water-supply

(*a*) Exclusive of zamindári area in Raipur, Bilaspur, and Drug

(*b*) Represent exports and consumption of the years ending the 30th September as the reported estimates of the yield were imperfect

(*c*) Exclusive of Tonk

(*d*) Exclusive of the greater part of the Bhopal Agency

Note.—The figures for 1907-08 are subject to revision

COTTON—*concluded*

[The figures in bales represent the outturn of cleaned cotton, *i.e.*, cotton with the seeds extracted]

Province	acres	bales of 400 lb	Character of season
Burma			
1898-99	167,821	—	
1899-1900	148,563	32,900	Not unfavourable, though crop damaged by heavy rain
1900-01	141,718	21,077	Heavy rain injured the crop
1901-02	130,610	13,125	Unfavourable owing to want of rain
1902-03	148,867	21,114	Fair on the whole
1903-04	165,000	27,000	Not unfavourable on the whole
1904-05	189,000	39,000	Favourable on the whole
1905-06	183,000	35,000	
1906-07	187,000	36,000	Fairly favourable on the whole
1907-08	189,000	28,000	Unfavourable owing to deficient rainfall
Bengal (a)			
1893-94	215,000	59,428	Not favourable owing to ill-distributed rain
1894-95	206,200	63,871	Favourable on the whole
1895-96	197,900	53,356	Favourable except at sowing time
1896-97	157,100	40,184	Unfavourable owing to deficient rainfall
1897-98	174,000	52,590	Favourable on the whole
1898-99	167,900	45,560	Unfavourable owing to uneven character of monsoon
1899-1900	160,600	39,705	Unfavourable owing to inadequate rain
1900-01	127,700	41,262	Unfavourable for early but fairly favourable for late crop
1901-02	118,500	32,094	Unfavourable owing to deficient rain
1902-03	100,300	29,366	
1903-04	96,000	28,000	Not very favourable on the whole
1904-05	78,000	20,000	Not favourable owing to ill-distributed rain
1905-06	71,000	16,000	Crop suffered from excessive rain and floods
1906-07	75,000	16,000	
1907-08	74,000	14,000	Not favourable owing to floods and drought afterwards
Eastern Bengal and Assam			
1903-04 (*b*)	31,000	12,000	Not very favourable on the whole
1904-05	50,000	17,000	Generally favourable
1905-06	61,000	17,000	Crop injured by excessive rain
1906-07	76,000	17,000	Not favourable on the whole
1907-08	78,000	24,000	Very favourable
Mysore			
1903-04	70,000	13,000	Not reported
1904-05	71,000	5,000	
1905-06	76,000	5,000	
1906-07	89,000	10,000	Generally favourable
1907-08	84,000	7,000	
Ajmer-Merwara			
1903-04	33,000	5,000	Unfavourable owing to early cessation of rains
1904-05	52,000	18,000	Favourable
1905-06	29,000	5,000	Unfavourable owing to high winds
1906-07	40,000	19,000	Favourable
1907-08	41,000	11,000	Not favourable on the whole

Total

	Acres	Outturn as shown above (in bales of 400 lb)	Net exports and consumption (in bales of 400 lb) (*c*)	
1893-94	15,404,156	2,529,825	3,306,538	Not unfavourable on the whole
1894-95	14,959,103	2,223,029	2,989,019	Unfavourable. Early rains excessive, late rains deficient
1895-96	14,515,662	2,670,388	3,632,042	Favourable
1896-97	14,643,495	2,264,890	3,351,408	Unfavourable; monsoon withdrew early
1897-98	13,683,437	2,473,033	3,396,563	Not very favourable on the whole
1898-99	14,602,892	3,015,269	3,886,730	Favourable on the whole
1899-1900	11,384,576	1,090,168	2,526,880	Very unfavourable
1900-01	14,231,150	2,953,381	3,592,372	Favourable except in western and southern India
1901-02	14,506,295	2,744,591	4,054,588	Favourable except in western India
1902-03	16,581,046	3,367,030	4,540,217	Favourable
1903-04	18,025,000	3,160,665	4,269,367	Not favourable on the whole
1904-05	19,918,000	3,791,000	4,454,254	Favourable for early, but not for late crop
1905-06	21,072,000	3,416,000	4,685,751	Not favourable. Rainfall deficient
1906-07	22,329,000	4,933,700	5,361,655	Favourable
1907-08	21,074,000	3,044,000	4,479,443	Unfavourable. Rainfall short and ill-distributed

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) Assam only

(*c*) For the years up to 1906-07 the exports as well as the mill consumption are for the year ending the 30th September. For 1907-08 they are for the year ending the 30th June. No reliable information exists as to the annual consumption outside the mills, but in 1907 it was settled in consultation with the Bombay Cotton Trade Association to adopt the conventional estimate of 750,000 bales. This figure has been included in the figure for each year shown in this column

Note.—The figures for 1907-08 are subject to revision

LINSEED

Province	acres	tons	Character of season
United Provinces			
1893-94 (*a*) Pure	742,000	101,000	Crop suffered from excessive rainfall and rust
1893-94 (*a*) Mixed	503,000	65,000	
1894-95 Pure	753,857	69,165	Crop injured by excessive rain and fungoid disease
1894-95 Mixed	603,000	53,899	
1895-96 Pure	403,565	55,796	Unfavourable owing to scanty rain
1895-96 Mixed	560,000	82,462	
1896-97 Pure	235,166	40,036	Not favourable owing to drought
1896-97 Mixed	345,000	58,504	
1897-98 Pure	519,461	110,619	Favourable
1897-98 Mixed	425,000	90,976	
1898-99 Pure	438,728	87,854	Favourable on the whole
1898-99 Mixed	445,000	91,284	
1899-1900 Pure	357,880	73,267	Not unfavourable on the whole
1899-1900 Mixed	409,000	89,464	
1900-01 Pure	448,206	75,780	Crop affected by cloudy weather and fungoid disease
1900-01 Mixed	466,000	79,000	
1901-02 Pure	373,092	75,876	Not very favourable owing to scanty winter rains
1901-02 Mixed	498,000	100,113	
1902-03 Pure	536,044	114,595	Favourable on the whole
1902-03 Mixed	621,000	122,000	
1903-04 Pure	782,302	144,736	Favourable
1903-04 Mixed	592,000	105,000	
1904-05 Pure	634,500	51,800	Unfavourable owing to frost and rust
1904-05 Mixed	647,000	49,000	
1905-06 Pure	210,900	32,800	Not favourable owing to insufficient moisture
1905-06 Mixed	567,000	88,000	
1906-07 Pure	315,000	56,000	Not unfavourable on the whole
1906-07 Mixed	633,000	113,000	
1907-08 Pure	57,500	6,500	Very unfavourable owing to prolonged drought
1907-08 Mixed	269,000	30,000	
Bengal (*b*)			
1893-94	777,100	131,800	Rain excessive at first and deficient afterwards
1894-95	732,900	120,900	
1895-96	712,700	95,600	Not favourable owing to scanty rain
1896-97	587,800	84,900	Not favourable owing to drought
1897-98	662,800	125,400	Favourable
1898-99	677,900	144,700	
1899-1900	653,200	126,700	Rainfall ill-distributed
1900-01	806,700	133,400	Rainfall irregular and ill-distributed
1901-02	783,800	110,600	Unfavourable owing to deficient rainfall
1902-03	864,200	160,000	Rainfall ill-distributed
1903-04	922,800	168,800	Favourable on the whole
1904-05	730,400	96,600	Unfavourable owing to excessive rain, hail, and frost
1905-06	726,500	110,500	Crop suffered from untimely rain
1906-07	717,700	101,200	Not very favourable owing to excessive rain and hailstorms
1907-08	503,800	74,400	Unfavourable owing to failure of monsoon
Eastern Bengal			
1904-05	99,000	17,500	Not unfavourable on the whole
1905-06	103,000	17,300	Rainfall ill-distributed
1906-07	87,900	13,400	Not unfavourable on the whole
1907-08	85,600	11,500	Not favourable on the whole owing to drought
Central Provinces			
1893-94	1,788,000	132,000	Favourable though crop affected by heavy rain and rust
1894-95	1,498,672	42,532	Unfavourable owing to untimely rain and cloudy weather
1895-96	730,750	45,253	Unfavourable owing to scanty rainfall
1896-97	527,421	19,391	Very unfavourable owing to drought
1897-98	683,728	69,783	Generally not favourable
1898-99	838,255	58,955	Crop damaged by drought, frost, and cloudy weather
1899-1900	306,933	4,319	Very unfavourable owing to want of moisture
1900-01	495,165	20,652	Generally unfavourable
1901-02	609,596	32,786	Unfavourable owing to failure of winter rains
1902-03	494,137	42,352	Not favourable owing to drought, frost and insects
1903-04	808,566	77,567	Not favourable owing to absence of winter rains
1904-05	825,700	67,300	Unfavourable owing to frost, cloudy weather, and storms
1905-06	815,400	69,600	Crop damaged by frost and hailstorms
1906-07	1,061,200	97,700	Crop suffered through cloudy weather, frost, rust, hail
1907-08	498,800	22,300	Very unfavourable on the whole

(*a*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) Includes Eastern Bengal up to 1903-04

Note.—The figures for 1907-08 are subject to revision

LINSEED—*continued*

Province	acres	tons	Character of season
Hyderabad (*a*)			
1896-97	324,455	11,355	Unfavourable on the whole
1897-98	438,030	15,141	Not favourable on the whole
1898-99	426,045	13,443	Not favourable on the whole
1899-1900	171,970	1,506	Very unfavourable
1900-01	371,983	8,774	Unfavourable
1901-02	370,376	18,403	Not favourable on the whole
1902-03	378,559	22,343	Favourable
1903-04	529,214	25,290	Crop affected by severe cold and insects
1904-05	775,800	33,500	Favourable though crop affected by failure of late rain
1905-06	604,500	24,700	Unfavourable
1906-07	664,300	28,600	Favourable on the whole
1907-08	484,800	13,600	Unfavourable owing to insufficient rainfall
Berar (*b*)			
1893-94	578,000	29,000	Crop suffered from untimely rain and rust
1894-95	385,563	13,893	Unfavourable owing to cloudy weather, storms, and rust
1895-96	500,650	27,497	Not unfavourable on the whole
1896-97	188,142	4,576	Very unfavourable
1897-98	180,472	10,405	Not favourable on the whole
1898-99	171,085	7,683	Crop suffered through failure of late rains
1899-1900	21,564	—	Crop withered for want of moisture
1900-01	154,716	5,382	Unfavourable for want of sufficient rain
1901-02	185,738	9,606	Favourable, but crop injured by rats
1902-03	120,753	7,289	Fair on the whole
1903-04	184,823	18,617	Not favourable owing to absence of winter rains
1904-05	134,000	13,200	Not favourable owing to deficient winter rains and hail
1905-06	96,700	7,700	Unfavourable owing to frost, and hailstorms
1906-07	97,000	8,500	Crop suffered through cloudy weather, frost, rust, and hail
1907-08	56,100	1,700	Very unfavourable
Bombay (including Native States) (*c*)			
1893-94	402,000	52,000	Favourable
1894-95	410,692	25,508	Unfavourable owing to excessive moisture and blight
1895-96	606,428	63,261	Not unfavourable on the whole
1896-97	157,763	2,221	Very unfavourable owing to drought
1897-98	223,396	23,646	Not favourable
1898-99	277,462	23,975	Unfavourable on the whole
1899-1900	137,356	428	Disastrously bad owing to failure of rains
1900-01	141,221	3,036	Very unfavourable owing to scanty rain
1901-02	224,002	4,537	Very unfavourable owing to want of moisture
1902-03	198,544	12,989	Unfavourable on the whole
1903-04	381,374	31,822	Favourable on the whole
1904-05	548,000	18,500	Crop suffered from cold, frost, and deficient moisture
1905-06	154,800	2,600	Unfavourable owing to want of moisture
1906-07	167,100	6,800	Not favourable owing to ill-distributed rain
1907-08	126,500	3,200	Unfavourable owing to want of moisture
Rest of India			
1893-94	567,000	114,000	
Total			
1893-94 Pure	4,854,100	559,800	Favourable, though crop suffered from heavy rain
1893-94 Mixed	503,000	65,000	
1894-95 Pure	3,781,684	271,798	Unfavourable. Rainfall excessive, producing rust and disease
1894-95 Mixed	603,000	53,899	
1895-96 Pure	2,954,093	287,407	Unfavourable. Rainfall scanty
1895-96 Mixed	560,000	82,462	
1896-97 Pure	2,020,747	162,479	Very unfavourable, owing to drought
1896-97 Mixed	345,000	58,504	
1897-98 Pure	2,707,887	354,994	Favourable in northern India, but not in western and central India
1897-98 Mixed	425,000	90,976	
1898-99 Pure	2,829,475	336,610	
1898-99 Mixed	445,000	91,284	
1899-1900 Pure	1,648,903	206,220	Very unfavourable on the whole
1899-1900 Mixed	409,000	89,464	
1900-01 Pure	2,417,991	247,024	Unfavourable. Rainfall scanty
1900-01 Mixed	466,000	79,000	
1901-02 Pure	2,546,604	251,808	Unfavourable. Rainfall deficient
1901-02 Mixed	498 000	100,113	
1902-03 Pure	2,592,237	359,568	Not unfavourable on the whole
1902-03 Mixed	621,000	122,000	
1903-04 Pure	3,609,079	466,832	Favourable in northern and western India
1903-04 Mixed	592,000	105,000	
1904-05 Pure	3,747,400	298,400	Unfavourable owing to excessive rain, rust and frost
1904-05 Mixed	647,000	49,000	
1905-06 Pure	2,711,800	265,200	Unfavourable. Rain ill-distributed and untimely
1905-06 Mixed	567,000	88,000	
1906-07 Pure	3,110,200	312,200	Not favourable on the whole
1906-07 Mixed	633,000	113,000	
1907-08 Pure	1,813,100	133,200	Very unfavourable owing to failure of the monsoon
1907-08 Mixed	269,000	30,000	

(*a*) The figures for the years previous to 1902-03 exclude *jagir* areas.
(*b*) The estimates of yield for the years previous to 1903-04 are defective, being based on incorrect data
(*c*) Includes the State of Baroda also

Note.—The figures for 1907-08 are subject to revision

RAPE AND MUSTARD

Province	acres	tons	Character of season
Bengal (a)			
1893-94	2,209,100	334,200	Rain ill-distributed
1894-95	2,221,600	343,700	Crop suffered through absence of late rain
1895-96	2,148,400	332,400	Not unfavourable on the whole
1896-97	2,003,900	312,300	
1897-98	2,239,700	438,600	Favourable
1898-99	2,167,200	448,200	
1899-1900	2,032,900	371,900	Rainfall ill-distributed
1900-01	2,043,200	337,800	
1901-02	1,922,400	372,900	Rainfall generally deficient
1902-03	1,914,100	341,700	Rainfall ill-distributed
1903-04	1,973,900	365,500	Favourable on the whole
1904-05	782,700	125,900	Unfavourable on the whole owing to hail, frost, and rain
1905-06	767,200	118,400	Unfavourable owing to untimely rain
1906-07	818,100	138,800	Not very favourable
1907-08	611,200	88,600	Unfavourable on the whole
Eastern Bengal			
1904-05	1,194,800	234,400	Crop affected by hail and frost
1905-06	1,094,500	168,900	Not favourable owing to ill-distributed rainfall
1906-07	1,208,400	198,200	Not unfavourable on the whole
1907-08	1,249,800	185,000	Not very favourable on the whole
Punjab			
1893-94	899,900	112,016	Favourable, though crop injured by heavy rain and insects
1894-95	802,600	97,224	Crop injured by excessive rain in many districts
1895-96	475,100	50,602	Unfavourable owing to scanty rain
1896-97	515,300	52,756	Not favourable owing to drought
1897-98	1,112,300	142,115	Favourable
1898-99	582,600	56,041	Unfavourable owing to insufficient rain and drought
1899-1900	397,500	26,761	Very unfavourable owing to early cessation of monsoon
1900-01	1,638,400	248,022	Most favourable
1901-02	665,800	64,361	Unfavourable owing to failure of rains
1902-03	936,100	91,857	Not favourable owing to failure of winter rains
1903-04	1,038,900	159,236	Favourable on the whole
1904-05	1,210,800	119,300	Not favourable owing to severe frosts
1905-06	1,614,200	183,000	Not unfavourable on the whole
1906-07	1,402,400	172,300	Crop injured by excessive late rain
1907-08	842,800	105,400	Not favourable owing to drought
Assam			
1893-94	168,000	34,000	Favourable
1894-95	134,399	20,249	Unfavourable
1895-96	182,640	36,388	Not unfavourable on the whole
1896-97	178,408	38,853	
1897-98	167,268	31,878	Not very favourable owing to deficient winter rains
1898-99	134,856	21,891	Unfavourable owing to late subsidence of floods
1899-1900	119,110	21,789	Unfavourable at first, but favourable afterwards
1900-01	126,309	21,140	Unfavourable owing to absence of rain
1901-02	157,671	28,294	Favourable, though crop suffered from heavy rain
1902-03	174,719	27,905	Unfavourable on the whole
1903-04	172,039	29,098	Not quite favourable owing to want of late rain
1904-05	157,700	28,000	Not unfavourable
1905-06	164,400	30,200	Not favourable on the whole
1906-07	222,000	43,600	Generally favourable
1907-08	228,500	43,400	Not very favourable on the whole
United Provinces			
1893-94 (*b*) Pure	131,000	21,000	Not favourable owing to excessive rain and rust
1893-94 (*b*) Mixed	1,557,000	240,000	
1894-95 Pure	109,347	16,497	Crop injured by excessive moisture and fungoid disease
1894-95 Mixed	1,613,000	216,050	
1895-96 Pure	95,678	26,554	Not unfavourable on the whole
1895-96 Mixed	1,290,000	359,979	
1896-97 Pure	83,372	18,524	
1896-97 Mixed	1,526,000	340,602	
1897-98 Pure	88,822	28,417	Favourable
1897-98 Mixed	1,459,000	436,451	
1898-99 Pure	92,679	22,884	Favourable though crop injured by frost in places
1898-99 Mixed	1,509,000	410,983	
1899-1900 Pure	76,180	21,186	Not very favourable on the whole
1899-1900 Mixed	1,381,000	425,471	
1900-01 Pure	94,130	24,060	Crop affected by excessive rain and fungoid diseases
1900-01 Mixed	1,449,000	372,000	
1901-02 Pure	120,436	36,841	Favourable on the whole
1901-02 Mixed	1,461,000	430,617	
1902-03 Pure	140,296	31,320	
1902-03 Mixed	2,335,000	516,000	
1903-04 Pure	131,926	29,643	
1903-04 Mixed	2,429,000	542,000	
1904-05 Pure	140,100	18,800	Unfavourable owing to frost and rust
1904-05 Mixed	2,509,000	336,000	
1905-06 Pure	154,700	30,000	Crop suffered through insufficient moisture
1905-06 Mixed	2,026,000	398,000	
1906-07 Pure	153,400	30,000	Crop affected by cloudy weather and fungoid diseases
1906-07 Mixed	2,210,000	424,000	
1907-08 Pure	96,800	11,000	Very unfavourable owing to drought
1907-08 Mixed	1,870,000	217,000	

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

Note.—The figures for 1907-08 are subject to revision

RAPE AND MUSTARD.—*continued*

Province	acres	tons	Character of season
Sind (including Native States)			
1893-94	111,000	17,000	Crop suffered from deficient water supply, blight and frost
1894-95	222,413	24,852	Inundation favourable
1895-96	53,664	8,503	Unfavourable owing to deficient water supply
1896-97	72,093	11,101	Not favourable on the whole
1897-98	154,248	27,277	Favourable on the whole
1898-99	70,766	8,601	Unfavourable owing to low inundation and frost
1899-1900	64,637	6,193	Very unfavourable owing to failure of rains
1900-01	119,596	12,304	Not unfavourable on the whole
1901-02	113,140	12,049	
1902-03	78,606	7,813	Not favourable owing to low inundation
1903-04	85,525	16,550	Favourable
1904-05	30,100	2,500	Very unfavourable owing to low inundation, cold and frost
1905-06	64,200	11,500	Favourable on the whole
1906-07	87,900	12,400	
1907-08	61,100	6,200	Unfavourable owing to deficient moisture and frost
N. W. Frontier (a)			
1901-02	73,700	8,723	Most unfavourable owing to failure of winter rains
1902-03	110,900	13,151	On the whole favourable
1903-04	130,231	17,127	Favourable
1904-05	55,700	8,300	Unfavourable at first, but favourable afterwards
1905-06	85,500	12,200	Favourable
1906-07	218,800	19,400	
1907-08	121,000	12,300	Favourable on the whole
Bombay (including Native States)			
1893-94	89,000	18,000	Favourable
1894-95	91,822	18,509	
1895-96	49,431	7,617	Unfavourable owing to scanty rainfall
1896-97	55,615	8,207	Unfavourable owing to drought
1897-98	56,830	14,380	Favourable on the whole
1898-99	53,091	9,795	Not favourable owing to insufficient rain
1899-1900	2,536	111	Disastrous owing to failure of rain
1900-01	39,134	6,613	Fair on the whole
1901-02	17,438	1,721	Very unfavourable owing to drought
1902-03	54,625	7,891	Fair on the whole
1903-04	36,007	5,786	Not favourable owing to deficient late rains
1904-05	25,100	3,000	Unfavourable owing to deficient water supply
1905-06	43,800	9,300	Favourable
1906-07	61,400	14,300	
1907-08	54,000	12,500	Not unfavourable on the whole
Hyderabad (b)			
1896-97	1,994	73	Unfavourable
1897-98	3,828	140	
1898-99	8,796	286	Not unfavourable
1899-1900	905	6	Very unfavourable
1900-01	16,597	286	Not unfavourable
1901-02	12,077	146	Unfavourable
1902-03	12,537	289	Favourable on the whole
1903-04	14,917	266	
1904-05	13,000	200	Crop affected by failure of late rains
1905-06	14,300	100	Not favourable
1906-07	10,700	100	
1907-08	9,500	200	
Rest of India			
1893-94	68,000	10,000	
Total			
1893-94 Pure	3,676,000	546,216	Not unfavourable on the whole
1893-94 Mixed	1,557,000	240,000	
1894-95 Pure	3,582,181	521,031	Not favourable on the whole
1894-95 Mixed	1,615,000	216,050	
1895-96 Pure	3,004,913	462,064	Not favourable. Rainfall scanty
1895-96 Mixed	1,290,000	359,979	
1896-97 Pure	2,910,682	441,814	Unfavourable owing to drought
1896-97 Mixed	1,526,000	340,602	
1897-98 Pure	3,822,996	682,807	Favourable on the whole
1897-98 Mixed	1,459,000	436,451	
1898-99 Pure	3,109,988	567,698	Not favourable on the whole
1898-99 Mixed	1,509,000	410,983	
1899-1900 Pure	2,693,768	447,946	Unfavourable. Rainfall deficient
1899-1900 Mixed	1,381,000	425,471	
1900-01 Pure	4,077,366	650,225	Favourable in north-western India, but not elsewhere
1900-01 Mixed	1,449,000	372,000	
1901-02 Pure	3,082,662	525,035	Not favourable on the whole. Rainfall deficient
1901-02 Mixed	1,461,000	430,617	
1902-03 Pure	3,421,889	521,926	Not favourable on the whole. Rainfall ill-distributed
1902-03 Mixed	2,335,000	516,000	
1903-04 Pure	3,583,445	623,206	Favourable
1903-04 Mixed	2,429,000	542,000	
1904-05 Pure	3,640,000	540,400	Not favourable owing to hail and frost
1904-05 Mixed	2,509,000	336,000	
1905-06 Pure	4,002,800	563,600	Not favourable on the whole
1905-06 Mixed	2,026,000	398,000	
1906-07 Pure	4,183,100	629,100	Fairly good on the whole
1906-07 Mixed	2,210,000	424,000	
1907-08 Pure	3,274,700	464,900	Unfavourable owing to drought
1907-08 Mixed	1,870,000	217,000	

(*a*) Constituted in 1901 out of the Panjab
(*b*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1907-08 are subject to revision

SESAMUM (til or jinjili)

Province	acres	tons	Character of season
Madras (a)			
1893-94	717,500	51,300	Not favourable on the whole
1894-95	613,600	40,700	Unfavourable on the whole
1895-96	824,700	54,700	Not favourable owing to ill-distributed rain
1896-97	562,800	48,100	Not favourable
1897-98	826,000	69,000	Not favourable on the whole
1898-99	690,700	68,100	Not very favourable on the whole
1899-1900	665,900	45,100	Unfavourable
1900-01	850,000	68,200	Not favourable on the whole
1901-02	727,700	66,400	
1902-03	782,700	71,700	Favourable on the whole
1903-04	855,700	78,600	
1904-05	674,200	55,100	Rainfall insufficient
1905-06	723,300	55,000	Not unfavourable on the whole
1906-07	556,900	45,800	Early rainfall insufficient
1907-08	590,400	48,200	Not unfavourable on the whole
Bombay (including Native States) (b)			
1893-94	668,600	78,900	Not favourable owing to untimely rain
1894-95	754,072	100,438	Rainfall unseasonable.
1895-96	843,039	98,104	Crop suffered from want of moisture
1896-97	770,553	65,600	Crop suffered through early cessation of monsoon
1897-98	681,905	103,136	Favourable on the whole
1898-99	754,327	115,566	
1899-1900	303,148	6,186	Extremely unfavourable owing to failure of rains
1900-01	719,642	105,167	Favourable
1901-02	862,935	64,421	Unfavourable. Late rains failed
1902-03	904,523	177,137	Favourable
1903-04	1,125,055	218,219	Satisfactory
1904-05	793,900	52,700	Unfavourable owing to deficient rainfall
1905-06	908,100	105,100	Not favourable on the whole
1906-07	1,049,500	186,000	Fairly satisfactory
1907-08	944,300	59,900	Unfavourable owing to deficient rain and disease
Central Provinces			
1893-94	534,700	31,300	Not favourable owing to excessive rain
1894-95	520,099	27,714	
1895-96	569,407	45,243	Favourable at first, but not afterwards
1896-97	627,948	43,953	Not favourable on the whole
1897-98	749,491	67,770	Exceptionally favourable
1898-99	634,268	43,475	Unfavourable owing to ill-distributed rainfall
1899-1900	1,026,257	62,132	Favourable at first, but not afterwards
1900-01	983,260	82,138	
1901-02	710,641	39,020	Unfavourable. Early rains excessive. Late rains failed
1902-03	1,075,057	96,610	Favourable on the whole
1903-04	962,296	73,551	Not very favourable owing to heavy rainfall
1904-05	779,600	58,900	Unfavourable. Rainfall irregular
1905-06	686,800	57,700	Unfavourable. Crop injured by heavy rain and mists
1906-07	717,700	60,700	Crop damaged by heavy rain
1907-08	747,500	37,800	Unfavourable owing to early cessation of rains

(*a*) The estimates for Madras up to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for certain *zamindari* and whole *inam* villages have also been included

(*b*) Includes the State of Baroda also

Note.—The figures for 1907-08 are subject to revision

SESAMUM—*continued*

Province	acres	tons	Character of season
Bengal (*a*)			
1894-95	356,200	43,400	Not quite favourable
1895-96	368,900	36,000	
1896-97	332,500	30,800	
1897-98	367,500	49,900	Favourable on the whole
1898-99	367,200	52,100	
1899-1900	388,200	49,700	
1900-01	396,000	45,400	Not favourable. Rainfall capricious and irregular
1901-02	411,100	54,900	Crop suffered through drought
1902-03	384,800	45,000	Not favourable on the whole
1903-04	428,300	58,000	Favourable on the whole
1904-05	283,800	30,800	Crop damaged by hail, frost and excessive rain
1905-06	283,200	33,400	Latterly favourable
1906-07	273,200	36,000	Rainfall ill-distributed
1907-08	217,600	14,300	Unfavourable owing to failure of rains
Eastern Bengal			
1904-05	209,900	28,200	Crop damaged by hail, and excessive rain
1905-06	231,800	28,300	Not favourable. Rain ill-distributed
1906-07	223,100	36,200	At first favourable, but drought affected crop
1907-08	223,600	32,200	Crop affected by drought
United Provinces			
1893-94 (*b*) Pure	200,600	19,700	Favourable though crop affected by excessive rain
1893-94 (*b*) Mixed	509,000	50,000	
1894-95 Pure	177,043	15,513	Crop damaged by excessive rain
1894-95 Mixed	448,000	40,000	
1895-96 Pure	148,833	14,554	Crop suffered from scanty rainfall, insects and strong winds
1895-96 Mixed	560,000	55,000	
1896-97 Pure	177,785	12,222	Crop affected by early withdrawal of monsoon
1896-97 Mixed	672,000	45,000	
1897-98 Pure	147,817	14,994	Favourable on the whole
1897-98 Mixed	584,000	60,000	
1898-99 Pure	155,178	15,159	Excessive late rain affected crop
1898-99 Mixed	713,000	70,000	
1899-1900 Pure	203,604	22,743	Favourable on the whole
1899-1900 Mixed	517,000	60,000	
1900-01 Pure	238,154	28,431	Favourable on the whole
1900-01 Mixed	622,000	75,000	
1901-02 Pure	252,870	23,226	Crop suffered through deficient late rain
1901-02 Mixed	611,000	60,000	
1902-03 Pure	316,150	35,279	Favourable generally
1902-03 Mixed	717,000	80,000	
1903-04 Pure	374,559	34,345	Crop damaged by excessive rain and strong winds
1903-04 Mixed	747,000	70,000	
1904-05 Pure	304,100	13,900	Unfavourable owing to excessive rain at first and drought afterwards
1904-05 Mixed	600,000	35,000	
1905-06 Pure	278,200	17,500	Not favourable. Rainfall deficient
1905-06 Mixed	700,000	45,000	
1906-07 Pure	309,200	36,200	Favourable on the whole
1906-07 Mixed	775,000	90,000	
1907-08 Pure	329,800	9,900	Favourable at first, but not afterwards owing to drought
1907-08 Mixed	900,000	80,000	

(*a*) Includes Eastern Bengal up to 1903-04

(*b*) "Pure" means seed sown by itself; "mixed" means seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

Note.—The figures for 1907-08 are subject to revision

SESAMUM—*continued*

Province	acres	tons	Character of season
Panjab and N.-W. Frontier (a)			
1893-94	234,800	25,900	Not unfavourable on the whole
1894-95	319,200	31,917	Favourable on the whole
1895-96	189,400	18,772	Unfavourable
1896-97	223,400	21,379	
1897-98	195,400	22,984	Favourable on the whole
1898-99	252,600	25,350	Favourable, though rain ceased somewhat early
1899-1900	216,400	16,253	Favourable at first, but unfavourable later
1900-01	218,500	19,077	Unfavourable owing to heavy floods
1901-02	211,500	17,640	Unfavourable. Rainfall unevenly distributed
1902-03	244,000	20,819	Not unfavourable on the whole
1903-04	246,600	26,143	Favourable on the whole
1904-05	158,000	16,000	Unfavourable owing to insufficient moisture
1905-06	146,300	13,900	Unfavourable on the whole. Rainfall deficient
1906-07	95,500	8,800	Unfavourable. Rainfall irregular
1907-08	84,100	4,700	Very unfavourable. Rains ceased early
Sind (including Native States)			
1893-94	177,740	12,309	Moisture insufficient
1894-95	191,040	15,892	Favourable
1895-96	151,038	12,052	Scanty rains and low inundation
1896-97	183,873	12,384	Inundation good
1897-98	154,812	8,260	Not favourable
1898-99	114,129	8,285	Inundation low
1899-1900	158,957	7,323	Unfavourable on the whole
1900-01	105,881	4,468	
1901-02	99,693	5,985	Water-supply deficient
1902-03	118,044	7,602	Not quite favourable
1903-04	122,496	5,665	Crop suffered from blight and insects
1904-05	83,700	5,300	Inundation low
1905-06	84,400	6,300	Favourable on the whole
1906-07	55,900	4,300	Crop damaged by insects
1907-08	50,600	3,900	Inundation low
Berar (b)			
1893-94	85,300	3,200	Not favourable. Rainfall excessive
1894-95	69,715	2,359	
1895-96	76,155	2,704	Not favourable owing to drought
1896-97	103,298	3,515	Favourable at first, but drought later
1897-98	135,164	6,573	Favourable
1898-99	135,483	5,620	
1899-1900	116,089	1,436	Unfavourable owing to drought and excessive heat
1900-01	149,022	9,554	Very favourable
1901-02	118,249	2,958	Unfavourable. Rainfall excessive and continuous
1902-03	138,092	5,402	Favourable at first, but late rain untimely
1903-04	121,551	11,630	Crop damaged by heavy rain
1904-05	111,500	10,100	Unfavourable. Rainfall irregular
1905-06	106,100	9,200	At first favourable; but drought damaged crop
1906-07	90,200	9,700	Not unfavourable on the whole
1907-08	95,800	10,100	Crop suffered through want of moisture

(*a*) The figures of both area and yield from 1904-05 relate to Panjab only, the forecast of the sesamum crop of the North-West Frontier Province having been discontinued from that year

(*b*) The estimates of yield for the years previous to 1903-04 are defective, being based on incorrect data

Note.—The figures for 1907-08 are subject to revision

SESAMUM—*concluded*

Province		acres	tons	Character of season
Hyderabad (*a*)				
1896-97		387,041	13,005	Not favourable
1897-98		404,020	13,200	
1898-99		426,740	14,463	
1899-1900		237,512	2,383	Rains failed
1900-01		392,032	10,421	Not favourable on the whole
1901-02		377,023	21,660	Late rains unfavourable
1902-03		472,282	34,038	Favourable
1903-04		601,607	33,325	Crop suffered from heavy rains
1904-05		780,000	29,400	Unfavourable owing to insufficient rainfall
1905-06		465,600	18,400	
1906-07		493,700	27,300	Favourable
1907-08		510,600	20,600	Not favourable
Total				
1893-94	Pure	2,619,240	222,609	Not favourable on the whole
	Mixed	509,000	50,000	
1894-95	Pure	3,000,969	277,933	Crop injured by excessive rain
	Mixed	448,000	40,000	
1895-96	Pure	3,171,472	282,129	Crop injuriously affected by deficient rain
	Mixed	560,000	55,000	
1896-97	Pure	3,369,198	250,958	Unfavourable. Short rainfall
	Mixed	672,000	45,000	
1897-98	Pure	3,662,109	355,817	Favourable on the whole
	Mixed	584,000	60,000	
1898-99	Pure	3,530,625	348,118	Generally favourable
	Mixed	713,000	70,000	
1899-1900	Pure	3,316,067	213,256	Very unfavourable owing to drought
	Mixed	517,000	60,000	
1900-01	Pure	4,052,491	372,856	Favourable
	Mixed	622,000	75,000	
1901-02	Pure	3,711,711	296,210	Unfavourable owing to deficient and ill-distributed rain
	Mixed	611,000	60,000	
1902-03	Pure	4,435,648	493,587	Generally favourable
	Mixed	717,000	80,000	
1903-04	Pure	4,838,164	539,478	Favourable
	Mixed	747,000	70,000	
1904-05	Pure	4,178,700	300,400	Unfavourable. Rainfall irregular followed by drought
	Mixed	600,000	35,000	
1905-06	Pure	3,913,800	344,800	Not favourable on the whole
	Mixed	700,000	45,000	
1906-07	Pure	3,864,900	451,000	Favourable on the whole
	Mixed	775,000	90,000	
1907-08	Pure	3,794,300	241,600	Unfavourable owing to protracted drought
	Mixed	900,000	30,000	

(*a*) The figures for the years previous to 1902-03 exclude *jagir* areas

Note.—The figures for 1907-08 are subject to revision

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

GROUNDNUT

[The figures in tons represent the outturn of nuts in shell]

Province	acres	tons (*a*)	Character of season
Madras			
1895-96	243,400		
1896-97	157,300		
1897-98	94,500		
1898-99	116,200		
1899-1900	102,000	(*b*)	
1900-01	229,997		
1901-02	337,600		
1902-03	421,300		
1903-04	384,400		
1904-05	366,400	151,700	Rainfall insufficient
1905-06	393,100	174,500	Favourable
1906-07	511,000	189,000	Favourable
1907-08	572,000	200,000	Rainfall seasonable
Bombay (including Native States)			
1896-97	148,726	(*b*)	
1897-98	120,303	(*c*) 55,962	Rainfall insufficient
1898-99	101,614	70,561	Not unfavourable on the whole
1899-1900	71,946	9,250	Disastrous owing to drought
1900-01	64,411	28,631	Unfavourable. Rainfall deficient
1901-02	96,622	63,298	Favourable at first, but not afterwards
1902-03	69,855	61,854	Rainfall deficient. Water-supply short
1903-04	89,793	94,409	Favourable
1904-05	93,300	63,200	Not favourable on the whole. Rainfall deficient
1905-06	92,800	36,700	Unfavourable. Late rains deficient
1906-07	111,000	84,700	Favourable, though crop suffered from deficient moisture in places –
1907-08	96,600	59,100	Crop suffered from deficient water-supply and disease
Total			
1895-96	(*d*) 243,400	(*b*)	
1896-97	306,026		
1897-98	214,803	55,962	
1898-99	217,814	70,561	
1899-1900	173,946	9,250	
1900-01	294,408	(*e*) 28,631	
1901-02	434,222	63,298	
1902-03	491,155	61,854	
1903-04	474,193	94,419	
1904-05	459,700	214,900	Not favourable on the whole
1905-06	485,900	211,200	
1906-07	622,000	273,700	Favourable
1907-08	668,600	259,100	Not unfavourable on the whole

(*a*) The average outturn per acre in Madras has been fixed at 1,120 lbs of nuts in shell. In Bombay where groundnut is mainly grown with the help of irrigation, a good average crop is 3,200 lbs

(*b*) No information

(*c*) Excluding Native States

(*d*) Madras only

(*e*) Bombay only

Note—The figures for 1907-08 are subject to revision

JUTE

Province	acres*	bales of 400 lb	Character of season
Bengal (a)			
1893	2,222,600	5,001,700	Crop injured by heavy and continuous rain
1894	2,264,300	6,144,300	Favourable on the whole
1895	2,242,700	5,551,000	Rainfall ill-distributed
1896	2,196,600	5,717,000	Rainfall deficient on the whole
1897	2,151,600	6,839,000	Favourable on the whole
1898	1,624,400	5,334,000	Unfavourable on the whole
1899	1,961,800	5,412,000	
1900	2,093,400	(b) 6,526,000	Rainfall somewhat irregular
1901	2,263,800	7,438,000	Unfavourable at first, but favourable afterwards
1902	2,108,300	6,577,000	Abnormal. Rainfall irregular
1903	2,213,600	7,241,000	Favourable generally
1904	2,850,000	7,400,000	Crop damaged by excessive rain
1905	569,300	1,485,900	Moderately favourable
1906	780,400	1,911,700	Favourable, though crop damaged by floods
1907	931,200	2,058,300	Favourable at first, but not afterwards
Eastern Bengal and Assam (c)			
1902	34,400	(d) 48,000	Unfavourable. Rain excessive
1903	38,250	(d) 90,000	Favourable generally
1904	29,700	(d) 46,000	Very unfavourable owing to heavy rain and floods
1905	2,559,000	6,602,200	Moderately favourable
1906	2,702,500	7,215,700	Favourable, though crop affected by floods
1907	3,011,100	7,678,300	Favourable on the whole
Cooch Bihar			
1903	23,200	(d) 50,000	
1904	20,000	(d) 36,000	
1905	(e)	52,800	Not reported
1906	(e)	79,000	
1907	32,000	81,200	
Total			
1893	2,222,600		
1894	2,264,300		
1895	2,242,700		
1896	2,196,600		
1897	2,151,600		
1898	1,624,400		
1899	1,961,800	See under Bengal	See under Bengal
1900	2,093,400		
1901	2,263,800		
1902	2,142,700		
1903	2,275,050		
1904	2,899,700		
1905	3,128,300	8,140,900	Moderately favourable
1906	3,482,900	(f) 9,206,400	Favourable, though crop affected by floods
1907	3,974,300	9,817,800	Moderately favourable

* The estimates of the area under jute in Bengal previous to 1904 are based on very uncertain data

(a) Including Eastern Bengal up to 1904

(b) Revised according to the statistics of trade and consumption, and including the production of Assam, Cooch Bihar and Nepal

(c) The figures up to 1904 relate to Assam only, the figures for Eastern Bengal for those years being included under Bengal

(d) Included in the figures shown under Bengal for these years. (e) Not reported

(f) Excluding the figures for Nepal, Upper India and Madras, which are stated below (bales) :—

	Nepal	Upper India (*vid* E. I. Ry.)	Madras (*vid* B. N. Ry.)
1905	64,300	26,269	4,257
1906	50,018	10,520	1,057
1907	77,600	5,500	7,800

Note.—The figures for 1907 are subject to revision

INDIGO

Province	acres	cwt	Character of season
Bengal			
1893-94	648,928	67,285	Crop injured by heavy rain and floods
1894-95	629,100	104,485	Generally favourable
1895-96	552,700	73,133	Favourable for the most part
1896-97	582,200	56,671	Not unfavourable on the whole
1897-98	529,500	50,415	Rainfall insufficient and ill-distributed
1898-99	512,100	74,321	Favourable for the most part
1899-1900	449,200	44,996	Crop injured by excessive rain and floods
1900-01	360,600	47,707	Not unfavourable on the whole
1901-02	311,200	41,820	Rainfall deficient
1902-03	255,500	21,924	Very unfavourable, rainfall irregular and ill-distributed
1903-04	249,700	31,895	Favourable on the whole
1904-05	223,100	24,300	Very unfavourable. Rainfall irregular
1905-06	161,500	15,800	
1906 07	137,800	17,300	Crop injured by excessive rain and high floods
1907-08	146,800	20,000	Favourable for the most part
United Provinces			
1893-94	349,980	38,106	Favourable
1894-95	420,242	41,524	Favourable on the whole
1895-96	342,102	33,786	Favourable
1896-97	436,601	40,713	Favourable, though crop suffered from scanty rainfall
1897-98	376,899	37,545	Crop injured by heavy rain
1898-99	240,418	26,416	Not favourable. Crop injured by insects and heavy rain
1899-1900	231,400	17,977	Crop injured at first by excessive rain and then by drought
1900-01	262,175	31,529	Favourable on the whole
1901-02	168,990	18,986	Unsatisfactory, until the end of the season
1902-03	135,811	10,007	Unfavourable at first but favourable afterwards
1903-04	140,834	12,823	Not unfavourable on the whole
1904-05	74,500	8,000	Crop injured by heavy and continuous rain
1905-06	40,700	4,300	Not favourable on the whole
1906-07	40,400	5,100	Favourable on the whole
1907-08	47,300	5,600	
Madras			
1893-94	442,400	58,100	Rainfall timely
1894-95	514,500	67,480	Favourable generally
1895-96	414,900	63,680	Not unfavourable on the whole
1896-97	454,700	50,740	Not favourable on the whole. Rainfall deficient
1897-98	323,900	61,460	Not unfavourable on the whole
1898-99	210,600	30,320	Unfavourable on the whole
1899-1900	249,000	33,340	
1900-01	251,900	46,100	Favourable on the whole
1901-02	239,400	38,480	Not favourable on the whole
1902-03	212,200	40,260	Generally favourable
1903-04	241,900	45,900	Favourable
1904-05	126,300	16,700	Unfavourable owing to scanty rainfall
1905-06	113,900	17,300	Not unfavourable on the whole
1906-07	180,700	32,300	Favourable
1907-08	119,300	16,800	Not favourable owing to want of seasonable rainfall
Panjab			
1893-94	110,700	15,946	Favourable
1894-95	124,200	24,005	
1895-96	104,300	20,325	Favourable on the whole
1896-97	135,400	20,549	Crop suffered through deficient rain
1897-98	108,800	17,392	Generally good
1898-99	47,200	8,263	Unfavourable on the whole
1899-1900	97,300	15,577	Crop suffered from absence of rain
1900-01	115,700	22,693	Favourable
1901-02	71,600	13,533	Crop suffered from insufficient rain and locusts
1902-03	42,000	7,016	Unfavourable
1903-04	74,200	12,184	Favourable. Rainfall seasonable
1904-05	53,000	9,900	Not unfavourable on the whole
1905-06	67,500	10,800	
1906-07	62,300	11,000	Favourable, though crop damaged by insects
1907-08	57,900	9,000	Unfavourable throughout
Total			
1893-94	1,552,008	179,437	Favourable except in Bengal
1894-95	1,688,042	237,494	Favourable
1895-96	1,414,002	190,924	Favourable on the whole
1896-97	1,608,901	168,673	Not unfavourable on the whole
1897-98	1,339,099	166,812	
1898-99	1,010,318	139,326	Not favourable on the whole
1899-1900	1,026,900	111,890	Unfavourable. Rain irregular and ill-distributed
1900-01	990,375	148,029	Favourable on the whole
1901-02	791,190	112,819	Unfavourable. Rainfall deficient
1902-03	645,511	79,207	Unfavourable on the whole
1903-04	706,634	102,802	Favourable
1904-05	476,900	58,900	Not favourable on the whole
1905-06	383,600	48,200	
1906-07	421,200	65,700	Not unfavourable on the whole
1907-08	371,300	51,400	Crop injured by lack of timely rain except in Bengal (Bihar)

Note.—The figures for 1907-08 are subject to revision

SUGARCANE

[The figures in tons represent the outturn of raw sugar (*gúr*)]

Province	acres	tons	Character of season
United Provinces			
1898-99	1,227,881	1,204,799	Favourable
1899-1900	1,259,070	838,885	Rainfall irregular and ill-distributed
1900-01	1,212,456	1,193,214	Favourable on the whole
1901-02	1,228,691	976,222	Not favourable on the whole
1902-03	1,151,777	904,132	Not favourable owing to insufficient rain and frost
1903-04	1,089,602	877,102	Not favourable owing to heavy and continuous rain
1904-05	1,212,600	1,183,400	Very favourable throughout
1905-06	1,228,900	884,000	Unfavourable owing to deficient rain and drought
1906-07	1,386,700	1,264,600	Very favourable on the whole
1907-08	1,481,700	916,700	Not favourable owing to continued drought
Bengal (*a*)			
1898-99	861,100	871,435	Favourable on the whole
1899-1900	884,400	817,185	Favourable at first, but not so afterwards
1900-01	801,800	811,420	Not very favourable on the whole
1901-02	661,200	676,410	Not unfavourable on the whole
1902-03	673,500	681,580	
1903-04	632,400	653,900	Unfavourable at first, but favourable afterwards
1904-05	633,000	634,700	Favourable at first, but drought later
1905-06	421,600	426,700	Not unfavourable on the whole
1906-07	424,500	420,300	
1907-08	435,500	407,200	Favourable at first, but not afterwards
Eastern Bengal and Assam			
1905-06	201,500	188,500	Crop suffered from excessive rain and floods
1906-07	182,200	174,400	Not unfavourable on the whole
1907-08	174,600	163,200	Favourable at first, but not afterwards
Panjab			
1898-99	351,200	(*b*)	
1899-1900	343,600	203,935	Unfavourable
1900-01	334,500	272,114	Favourable on the whole
1901-02	351,500	239,105	Not favourable owing to drought and frosts
1902-03	309,400	204,012	Not favourable owing to failure of winter rains
1903-04	321,200	232,664	Not unfavourable, though crop injured by heavy rain and frosts
1904-05	325,500	238,300	Not unfavourable on the whole
1905-06	172,700	89,000	Distinctly unfavourable owing to drought
1906-07	277,700	212,800	Favourable
1907-08	384,700	288,500	Crop suffered somewhat from short supply of water
Bombay (including Native States)			
1907-08	61,800	154,900	Crop affected by excessive rain at first and by drought later
Madras (*c*)			
1898-99	45,500		
1899-1900	54,400	(*b*)	
1900-01	55,400		
1901-02	51,100	109,400	Favourable, though rainfall deficient in places
1902-03	46,500	93,400	Water-supply deficient
1903-04	44,300	83,700	Rainfall heavy at sowing time
1904-05	47,800	90,000	On the whole fair
1905-06	60,700	114,500	Favourable
1906-07	52,100	100,400	Rainfall not seasonable
1907-08	48,900	92,000	Rainfall not seasonable in places
N.-W. Frontier			
1901-02	23,900	21,339	Not unfavourable on the whole
1902-03	26,652	23,660	Favourable
1903-04	27,090	24,620	Favourable on the whole
1904-05	25,900	22,600	Favourable, though intense cold interfered with harvesting
1905-06	25,600	22,800	Favourable though crop injured slightly by frost
1906-07	28,600	32,800	Favourable
1907-08	35,200	32,200	
Total			
1898-99	2,485,681	2,076,234	Not unfavourable on the whole
1899-1900	2,541,470	1,860,005	Unfavourable
1900-01	2,404,156	2,276,748	Favourable on the whole
1901-02	2,316,391	2,022,476	Not favourable on the whole
1902-03	2,207,829	1,906,784	Not favourable. Water supply deficient
1903-04	2,114,592	1,871,986	Not favourable. Rainfall heavy
1904-05	2,244,800	2,169,000	Favourable on the whole
1905-06	2,111,000	1,725,500	Not favourable owing to drought
1906-07	2,351,800	2,205,300	Generally favourable
1907-08	2,622,400	2,054,700	Favourable at first, but not afterwards

(*a*) Includes Eastern Bengal up to 1904-05 (*b*) No information

(*c*) The estimates for Madras up to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for certain *zamindari* and whole *inam* villages have also been included

Note.—The figures for 1907-08 are subject to revision

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